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CALIFORNIA DESERT PROTECTION ACT OF 1989

HEARING

BEFORE THE

SUBCOMMITTEE ON
PUBLIC LANDS, NATIONAL PARKS AND FORESTS

OF THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

S. 11

TO PROVIDE FOR THE PROTECTION OF THE PUBLIC LANDS IN THE CALIFORNIA DESERT

OCTOBER 2, 1989

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Committee on Energy and Natural Resources

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CONTENTS

Page

S. 11 19

STATEMENTS

Ashburn, Roy, supervisor, Kern County, First District, Bakersfield, CA 438
Bumpers, Hon. Dale, U.S. Senator from Arkansas 3
Byers, George G., director, public affairs, Santa Fe Pacific Minerals Corp 403
Cranston, Hon. Alan, U.S. Senator from California 86
Davison, Patricia, Running Springs, CA 282
Department of Agriculture 15
Duffus, James III, Director, Natural Resources Management Issues, General Accounting Office, accompanied by Robert Robinson, Assistant Director, Natural Resources Management Issues 233
Fisher, David, California Cattlemen's Association 428
Goerold, Dr. W. Thomas, chief economist, energy and mineral resources, the Wilderness Society 313
Jamison, Cy, Director, Bureau of Land Management, Department of the Interior, accompanied by Ed Hastey, State director, California State Office, Bureau of Land Management and Ed Rothfuss, superintendent, Death Valley National Monument 147
Jaynes, Martin G., California division, Izaak Walton League of America 274
Leedy, Dr. William P., geologist, Kerr-McGee 273
Levine, Hon. Mel, U.S. Representative from California 114
Lewis, Hon. Jerry, U.S. Representative from California 116
McCandless, Hon. Al, U.S. Representative from California 129
McClure, Hon. James A., U.S. Senator from Idaho 5
Murphy, Dr. Dennis D., director, Center for Conservation Biology, Stanford University 390
Pavlik, Dr. Bruce M., associate professor, chairman of biology, Mills College 375
Reveles, Robert, California Mining Association, accompanied by Dr. William P. Leedy, geologist 257
Scott, Doug, conservation director, Sierra Club 290
Stone, Robert A., Deputy Assistant Secretary of Defense (Installations), Department of Defense 218
Thomas, Hon. William M., U.S. Representative from California 134
Wallop, Hon. Malcolm, U.S. Senator from Wyoming 8
Ward, Randall, director, California Department of Conservation 245
Warren, Dr. Claude N., professor of anthropology, University of Nevada 396
Wilson, Hon. Pete, U.S. Senator from California 98
Wirth, Hon. Timothy E., U.S. Senator from Colorado 1
Yeager, Brooks B., vice president for Government affairs, National Audubon Society 302

APPENDIXES

Appendix I

Responses to additional questions 449

Appendix II

Additional material submitted for the record 494

CALIFORNIA DESERT PROTECTION ACT OF 1989

MONDAY, OCTOBER 2, 1989

U.S. Senate,
Subcommittee on Public Lands,
National Parks and Forests,
Committee on Energy and Natural Resources,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:05 p.m. in room SD-366, Dirksen Senate Office Building, Hon. Dale Bumpers, presiding.

OPENING STATEMENT OF HON. TIMOTHY E. WIRTH, U.S. SENATOR FROM COLORADO

Senator Wirth. The committee will come to order. I thank you very much for coming, Senator Cranston. Welcome.

The purpose of today's hearing is to receive testimony on S. 11, the California Desert Protection Act.

S. 11 represents the most ambitious land allocation measure to come before this committee since the Alaska Lands Act of 1980. It would designate 81 new wilderness areas in the California Desert, adding approximately eight and a half million acres to the National Wilderness Preservation System.

Some four million of these acres would be administered by the Park Service and four and a half million by the Bureau of Land Management.

S. 11 would also establish the new East Mojave National Park and make sizeable additions to the existing Joshua Tree and Death Valley National Monuments and redesignate these areas as national parks.

In addition, the bill would withdraw approximately 1.3 million acres of public lands for use by the military.

I want to applaud Senator Cranston for his efforts to protect the valuable natural resources of the California desert, and I for one have been a cosponsor of your legislation, Senator Cranston, and we really appreciate your good work.

I would like to welcome all of the witnesses who will be testifying this afternoon and to add a special welcome to Cy Jamison, who is making his first appearance before this subcommittee in his new role as Director of BLM. I am pleased that he was able to rearrange his speaking schedule so that he could be here today.

Since we have a number of witnesses in a short amount of time, I will ask all witnesses to please limit their statements to no more than five minutes. Their statements will, of course, be included in full in the record.

At this point I will insert copies of the proposal in the hearing record which will remain open for two weeks to receive additional statements and materials.

I appreciate your being here, Senator Cranston, to kick us off this afternoon. I am sorry that there has been no interest in this legislation, but maybe as we move along in the hearing, some people may want to attend.

Senator Cranston, please proceed in whatever way you feel would be most helpful for the record and for the committee.

[The prepared statements of Senators Bumpers, McClure, and Wallop, a statement from the Department of Agriculture, and the text of S. 11 follow:]

STATEMENT OF THE HONORABLE DALE BUMPERS
ON S. 11

THE PURPOSE OF TODAY'S HEARING IS TO RECEIVE TESTIMONY ON S. 11, THE CALIFORNIA DESERT PROTECTION ACT.

S. 11 REPRESENTS THE MOST AMBITIOUS LAND ALLOCATION MEASURE TO COME BEFORE THIS COMMITTEE SINCE THE ALASKA LANDS ACT OF 1980. IT WOULD DESIGNATE 81 NEW WILDERNESS AREAS IN THE CALIFORNIA DESERT, ADDING APPROXIMATELY 8.5 MILLION ACRES TO THE NATIONAL WILDERNESS PRESERVATION SYSTEM; SOME 4.0 MILLION OF THESE ACRES WOULD BE ADMINISTERED BY THE PARK SERVICE AND 4.5 MILLION ACRES BY THE BLM. S. 11 WOULD ALSO ESTABLISH THE NEW EAST MOJAVE NATIONAL PARK, AND MAKE SIZEABLE ADDITIONS TO THE EXISTING JOSHUA TREE AND DEATH VALLEY NATIONAL MONUMENTS, AND REDESIGNATE THESE AREAS AS NATIONAL PARKS. IN ADDITION, THE BILL WOULD WITHDRAW APPROXIMATELY 1.3 MILLION ACRES OF PUBLIC LAND FOR USE BY THE MILITARY.

WHILE I HAVE NOT FORMALLY TAKEN A POSITION ON THIS BILL, I APPLAUD SENATOR CRANSTON FOR HIS EFFORTS TO PROTECT THE VALUABLE NATURAL RESOURCES OF THE CALIFORNIA DESERT.

I WOULD LIKE TO WELCOME ALL OF THE WITNESSES WHO WILL BE TESTIFYING THIS AFTERNOON. I WOULD LIKE TO ADD A SPECIAL WELCOME TO CY JAMISON, WHO IS MAKING HIS FIRST APPEARANCE BEFORE THE SUBCOMMITTEE IN

HIS NEW ROLE AS DIRECTOR OF THE BUREAU OF LAND MANAGEMENT. I AM PLEASED THAT HE WAS ABLE TO REARRANGE HIS SPEAKING SCHEDULE SO THAT HE COULD BE HERE TODAY.

SINCE WE HAVE A NUMBER OF WITNESSES TO GET THROUGH IN A SHORT AMOUNT OF TIME, I WILL ASK ALL WITNESSES TO PLEASE LIMIT THEIR STATEMENTS TO NO MORE THAN FIVE MINUTES.

AT THIS POINT, I WILL INSERT COPIES OF THE PROPOSAL IN THE HEARING RECORD, WHICH WILL REMAIN OPEN FOR TWO WEEKS TO RECEIVE ADDITIONAL STATEMENTS AND MATERIALS.

Statement of Senator James A. McClure
Subcommittee on Public Lands, National Parks and Forests
Hearing on S. 11,
a bill to provide for the protection of public lands
in the California Desert
October 2, 1989

Mr. Chairman, I appreciate your holding the hearing today on the California Desert Protection Act. I have a number of concerns with this legislation, a few of which I would like to bring to the Committee's attention this afternoon.

First, I am very concerned about the amount of money and effort Congress spent on incorporating the California Desert Conservation Area into the Federal Land Policy and Management Act of 1976. This was passed in order to provide for the "protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield and the maintenance of environmental quality." 12.1 million acres of BLM holdings were included in the designation of the California Desert Conservation Area. FLPMA directed the BLM to produce a plan for managing the desert, and in 1980, BLM recommended that 1.9 million acres of wilderness be designated and that there be no transfers to the National Park Service. By passing this legislation, we are disregarding FLPMA and are now looking at removing multiple use management from the area.

In view of the removal of multiple use management by the BLM, I am also concerned about the mining and recreation interests in the area.

Another problem is that associated with restrictions on military use of the area. There are five areas of strategic importance to our national defense which would be impacted by wilderness and park designations. While the legislation may not affect current military use, our future needs may well require more liberal use of areas adjacent to or over the proposed wilderness and park areas.

I also view with chagrin the absence of language on federally-reserved water rights. This issue must be addressed.

Last, but not least, this legislation would require acquisition of some areas from inholders. The federal government currently has many authorized areas which have not been acquired because of the lack of funds appropriated for this purpose. Not only would this be unnecessarily costly, but I would hate to see another large area added to the already existing backlog when the Desert area seems to be adequately protected under BLM management.

Mr. Chairman, I look forward to the testimony of the witnesses on this legislation, and I appreciate the opportunity to let you know of some of my concerns.

STATEMENT OF SENATOR MALCOLM WALLOP

Subcommittee on Public Lands, National Parks and Forests

Hearing on S. 11,

a bill to provide for the protection of the public lands in the California Desert

October 2, 1989

Mr. Chairman, thank you for holding these hearings today on this most important subject, the California Desert.

There has been an enormous amount of attention given to the desert, and I think it is useful that the Committee has scheduled this hearing, as the issues raised by this legislation are contentious and extremely complex. I suspect the solution will be equally as contentious and complex.

There are a number of issues in this legislation before us that I would like to address. But first, I would like to inform my colleagues of a situation involving the critical need to support military readiness and the urgency of expanding military capabilities in the California Desert region to meet current and future national defense needs. As written, S. 11 may represent a serious and nearly irreversible loss of potential military capability, which cannot be replaced elsewhere.

S. 11 incorporates approximately 8.5 million acres of southeastern California Desert land into the National Park and National Wilderness Preservation Systems and would indirectly affect millions of additional acres.

There are five significant military bases or ranges in the California desert area, some of the largest and most important in the nation.

I would like to take a moment to discuss the mission of just two of these areas. This is not to imply the other three are any less important.

The Naval Weapons Center (China Lake), with headquarters, principle laboratories and test ranges located about 150 miles north of Los Angeles, and additional test facilities located at Corona and near El Centro, California, is heavily involved in numerous Navy programs which support the fleet and contribute to the Maritime strategy. The center has the unique combination of complete research, development, test and evaluation assets -- all contained in an integrated complex of laboratories, shops and ranges -- necessary for carrying on the weapon development process from basic and applied research through total system development, pilot production, and fleet and production support.

In addition, the Weapons Center is the principle Navy research, development, test and evaluation center for air warfare systems and missile weapons. This requires firing armed, experimental missiles across the ranges to evaluate their performance, exploring missile warheads, and other highly dangerous activities.

China Lake facilities are further enhanced by the availability of a unique tri-service-managed special-use airspace complex which provides additional military airspace for maneuvering, tactics development, proficiency flights and test and evaluation activities which cannot be contained within the confines of the Naval Weapons Center's airspace.

The Chocolate Mountains Aerial Gunnery Range is the Marine Corps primary live ordinance range, and its only such range in the continental U.S. available exclusively for live bombing and aerial gunnery. As such it is not replaceable at any price. Because it most closely simulates actual combat and allows verification of weapons capabilities, live ordnance training is essential to combat preparedness.

The Chocolate Mountains Aerial Gunnery Range has been used as a live ordinance range since World War II. Except when closed for explosive ordinance sweeps, target replacement, and other maintenance, the range complex is under heavy use by units from throughout the U.S. and the Pacific Fleet on a daily, year-round basis. Though primarily used by the Navy and Marine Corps, the Range is also used by Air Force and Army units and elements of the Canadian Air Force. In Fiscal Year 1988, 23,986 sorties were flown in the area by 127 units, at an average rate of 105 sorties per day.

Although the bill recognizes the importance of military activities in the California Desert, it most certainly does not recognize "the advance of technology." What was once considered sufficient airspace may in the next few years no longer be adequate.

If that is the case, and as technology advances, vital training need and weapons testing capabilities of these two areas would be severely inhibited. The political reality is that once these wilderness areas are established it will be impossible to open them up to new needs.

Let me speak a moment to the issue of low-level flights. It is important to note there is nothing in current law which prevents low-level flights over wilderness. There is, however, an FAA advisory to maintain a minimum altitude of 2000 feet above the terrain of wilderness and a Defense Department policy to maintain that level at 3000 feet. Should the United States Navy choose to ignore the FAA advisory and change the Department policy, which could be accomplished, their actions will create controversy, complaints, and endless litigation, all of which could seriously restrict the mission of both the Weapons Center and the Range at Chocolate Mountains.

This clearly is not in our best interest, nor does it advance our position of maintaining the combat readiness of Naval aviation forces.

Last, but certainly not least, it is imperative that we provide our pilots with the safe opportunity to train effectively. In light of rapidly changing technology, our ability to train, test and develop is essential and needs to be made more flexible so that future training scenarios can be accomplished. Surely this Congress has a duty to afford our pilots the safest and most secure training possible. These aviators literally place their lives on the line each day, and while you may be numb from stories of various military installations and their overriding needs and importance to national defense, let me assure you that the Weapons Center and Gunnery Range play a very vital role.

There are a number of other issues that I will want to fully explore as we proceed with this legislation. Those include, but are not limited to, mineral potential and the impact to the mining industry and recreation access. In addition, there are numerous private inholders within the proposed wilderness areas and parks created by S. 11.

I am troubled by the potential cost of land acquisition in this legislation, and that will move to the head of the line over all the inholders within authorized units of the National Park System who have waited year after year for the federal government to acquire their land. We currently have a backlog of authorized but unacquired lands within units of the National Park System which are not likely to be acquired within the lifetimes of the members of this Congress, or even of our successors.

We have significant demands on our fiscal resources simply to maintain and rehabilitate what we have.

We have built a backlog of acquisition which makes additional acquisition almost wishful thinking. I regret that very much. I sincerely wish we had the resources to acquire and protect all that we should so that future generations can enjoy what we have had. But the fact is that resources are finite and as with this legislation, realistic priorities must be decided upon.

I am also concerned about the fact that the bill is silent on the issue of federally-reserved water rights. This issue needs to be fully explored.

Finally, I am troubled by the fact that in passing the Federal Land Policy and Management Act in 1976, we mandated a public planning process for California's public lands. After numerous public meetings and literally tens of thousands of individual comments, a plan was produced at a cost of nearly 8 million dollars to American citizens. The final result was a compromise plan which focused on all facets of desert use, and seemed to be acceptable to all parties concerned.

I am not sure the principles of the desert plan deserve to be ignored and discarded. I will be very interested to know why the land uses designated by S. 11 are superior to those outlined in the Desert plan.

Mr. Chairman, I will have a number of questions to submit to various witnesses today regarding my concerns and I would hope both the questions and answers will be reflected in the record.

I look forward to hearing the testimony of the witnesses today and to working with Senator Cranston and you, Mr. Chairman, on this legislation.

STATEMENT OF
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on Public Lands, National Parks and Forests
Committee on Energy and Natural Resources
United States Senate

Concerning S. 11, "The California Desert Protection Act of 1989"

October 2, 1989

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for the opportunity for the Department of Agriculture to provide a statement regarding S. 11, a bill "To provide for the protection of the public lands in the California desert."

The Department of Agriculture recommends that S. 11 not be enacted. We defer to the Department of the Interior and the Department of Defense regarding the portions of the bill affecting those Departments.

Only Title I of S. 11 would affect this Department.

Title I would designate 78 areas as new components of the National Wilderness Preservation System. Seventy-five of these areas would be administered solely by the Bureau of Land Management (BLM) and three would be administered by both the BLM and the Forest Service. Also, Title I would designate three areas administered by the BLM as additions to existing National Forest System wilderness areas. These additions will continue to be administered by BLM.

California has tremendous ecological diversity. Much of this diversity is represented on public lands, including over 20 million acres of National Forest System lands. Public lands, whether local, State, or Federal, are frequently the subject of debate about how they can best be managed and used. Such is the case with the Federal lands in the southern California desert region.

The desert is a unique resource. Numerous species of plants and animals inhabit the desert. It has an undetermined value in minerals, gas, and oil. It provides a diversity of recreation opportunities for millions of people each year, including those seeking solitude and those who recreate with motorcycles and four-wheel-drive vehicles.

As directed by the National Forest Management Act, the Forest Service has examined a wide range of land use alternatives for the National Forest System lands S. 11 would designate. Land and Resource Management Plans (Forest Plans) for the three National Forests that would be affected by S. 11--the Inyo, San Bernardino, and Sequoia--are now complete. The planning process involved inventorying and analyzing the resources as well as listening to and analyzing the views of the public. Our recommendations regarding S. 11 are based on the Forest Plans, and we believe they reflect a reasonable and workable balance of uses.

The following recommendations apply only to National Forest System lands.

The 205,060-acre Inyo Mountain Wilderness would include 67,500 acres administered by the Inyo National Forest. The forest planning process involved a citizen "wilderness work group," with members reflecting various viewpoints, to develop a "citizen's consensus" regarding wilderness. The citizen's consensus was incorporated into the Forest Plan, which recommends that 47,534 acres be designated as wilderness. Excluded from the recommended wilderness are areas with roads and mining claims, and a proposed Research Natural Area, all of which would be included in the wilderness S. 11 would designate. We do not support wilderness designations that are inconsistent with the recommendations contained in the Forest Plan.

The 33,800-acre Bighorn Mountain Wilderness would include 11,000 acres administered by the San Bernardino National Forest. The Forest and the California Department of Fish and Game have a formal agreement to install manmade water developments for wildlife. These facilities would not be compatible with wilderness designation. The area has moderate potential for development of minerals such as limestone, gold, tungsten, zinc and lead. Over 70 claims have been filed, and some mining has taken place. Because of these factors, the Forest Plan management prescription for this area is "Custodial," which provides for only limited motorized vehicle access while allowing the water developments for wildlife. We do not support wilderness designation for the Bighorn Mountain area.

The 88,280-acre Kiavah Wilderness would include 48,000 acres administered by the Sequoia National Forest. Recreation use of the area is very low, due to its aridity. An existing Forest Service road, suitable only for four-wheel drive vehicles, provides access. About 90 percent of all use in the area originates from this road. The Pacific Crest National Scenic Trail bisects the area. The Forest Plan allocates the area to wildlife and dispersed recreation, with an emphasis on wildlife habitat improvement to increase the quality of recreational experiences. We do not support wilderness designation as it would necessitate closing the road from which nearly all the traditional recreation use originates.

The three BLM areas that would be added to existing Forest Service wilderness areas--Dome Land, San Gorgonio, and Santa Rosa--would not significantly affect management of the existing wilderness. This is not to say that these areas should be designated--we defer to the Department of the Interior on the merits of designation.

In summary, we believe that Congress should strongly consider the recommendations documented in the Forest Plans. These plans are the result of several years of analysis and public consultation about how to best manage these lands. We also recommend that Congress not act on the wilderness additions proposed in S. 11 until it receives the Secretary of the Interior's final recommendations for wilderness designations within the California Desert Conservation Area.

We would be happy to provide any additional information you may desire.

101st CONGRESS
1st Session

S. 11

To provide for the protection of the public lands in the California desert.

IN THE SENATE OF THE UNITED STATES

January 25 (legislative day, January 3), 1989

Mr. Cranston introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To provide for the protection of the public lands in the California desert.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "California Desert Protection Act of 1989".

FINDINGS AND POLICY

Sec. 2. (a) The Congress finds and declares that—

(1) the federally owned desert lands of southern California constitute a public wildland resource of extraordinary and inestimable value for this and future generations;

(2) these desert wildlands display unique scenic, historical, archeological, environmental, ecological, wildlife, cultural, scientific, educational, and recreational values used and enjoyed by millions of Americans for hiking and camping, scientific study, and scenic appreciation;

(3) the public land resources of the California desert now face and are increasingly threatened by adverse pressures which would impair, dilute, and destroy their public and natural values;

(4) the California desert, embracing wilderness lands, units of the National Park System, other Federal lands, State parks and other State lands, and private lands, constitutes a cohesive unit posing unique and difficult resource protection and management challenges;

(5) through designation of national monuments by Presidential proclamation, through enactment of general public land statutes (including section 601 of the Federal Land Policy and Management Act of 1976, 90 Stat. 2743; 43 U.S.C. 1701 et seq.) and through interim administrative actions, the Federal Government has begun the process of appropriately providing for protection of the significant resources of the public lands in the California desert; and

(6) statutory land unit designations are needed to afford the full protection which the resources and public land values of the California desert merit.

(b) In order to secure for the American people of this and future generations an enduring heritage of wilderness, national parks, and public land values in the California desert, it is hereby declared to be the policy of the Congress that—

(1) appropriate public lands in the California desert shall be included within the National Park System and the National Wilderness Preservation System, in order to—

(A) preserve unrivaled scenic, geologic, and wildlife values associated with these unique natural landscapes;

(B) perpetuate in their natural state significant and diverse ecosystems of the California desert;

(C) protect and preserve historical and cultural values of the California desert associated with ancient Indian cultures, patterns of western exploration and settlement, and sites exemplifying the mining, ranching, and railroading history of the Old West;

(D) provide opportunities for compatible outdoor public recreation, protect and interpret ecological and geological features, and historic, paleontological, and archeological sites, maintain wilderness resource values, and promote public understanding and appreciation of the California desert; and

(E) retain and enhance opportunities for scientific research in undisturbed ecosystems.

TITLE I—WILDERNESS ADDITIONS

FINDINGS

SEC. 101. The Congress finds and declares that—

(1) wilderness is a distinguishing characteristic of the public of the public lands in the California desert, one which affords an unrivaled opportunity for experiencing vast areas of the Old West essentially unaltered by man's activities, and which merits preservation for the benefit of present and future generations;

(2) the wilderness values of desert lands are increasingly threatened by and especially vulnerable to impairment, alteration, and destruction by activities and intrusions associated with incompatible use and development; and

(3) preservation of desert wilderness necessarily requires the highest forms of protective designation and management.

DESIGNATION OF WILDERNESS

SEC. 102. In furtherance of the purposes of the Wilderness Act of 1964 (78 Stat. 890; 16 U.S.C. 1131 et seq.), and sections 601 and 603 of the Federal Land Policy and Management Act of 1976 (90 Stat. 2743; 43 U.S.C. 1701 et seq.), the following lands in the State of California, as generally depicted on maps, appropriately referenced, dated February 1986, (except as otherwise dated) are hereby designated as wilderness, and therefore, as component of the National Wilderness Preservation System—

(1) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seventy-four thousand eight hundred and ninety acres, as generally depicted on a map entitled "Argus Range Wilderness—Proposed", dated January 1989, and which shall be known as the Argus Range Wilderness;

(2) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately sixty-one thousand three hundred and twenty acres, as generally depicted on a map entitled "Avawatz Mountains Wilderness—Pro-

posed", and which shall be known as the Avawatz Mountains Wilderness;

(3) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately ten thousand eight hundred and seventy acres, as generally depicted on a map entitled "Bigelow Cholla Garden Wilderness—Proposed", and which shall be known as the Bigelow Cholla Garden Wilderness;

(4) certain lands in the California Desert Conservation Area, of the Bureau of Land Management and within the San Bernardino National Forest, which comprise approximately thirty-three thousand eight hundred acres, as generally depicted on a map entitled "Bighorn Mountain Wilderness—Proposed", and which shall be known as the Bighorn Mountains Wilderness;

(5) certain lands in the California Desert Conservation Area and the Yuma District, of the Bureau of Land Management, which comprise approximately forty-seven thousand five hundred and seventy acres, as generally depicted on a map entitled "Big Maria Mountain Wilderness—Proposed", and which shall be known as the Big Maria Mountains Wilderness;

(6) certain lands in the California Desert Conservation Area, of the Bureau of Land Management,

which comprise thirteen thousand nine hundred and forty acres, as generally depicted on a map entitled "Black Mountain Wilderness—Proposed", and which shall be known as the Black Mountain Wilderness;

(7) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seven thousand two hundred acres, as generally depicted on a map entitled "Blackwater Well Wilderness—Proposed", and which shall be known as the Blackwater Well Wilderness;

(8) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately nine thousand five hundred and twenty acres, as generally depicted on a map entitled "Bright Star Wilderness—Proposed", and which shall be known as the Bright Star Wilderness;

(9) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately forty-two thousand six hundred and forty acres, as generally depicted on a map entitled "Cadiz Dunes Wilderness—Proposed", and which shall be known as the Cadiz Dunes Wilderness;

(10) certain lands in the California Desert Conservation Area, of the Bureau of Land Management,

which comprise approximately eighty-five thousand nine hundred and seventy acres, as generally depicted on a map entitled "Cady Mountains Wilderness—Proposed", and which shall be known as the Cady Mountains Wilderness;

(11) certain lands in the California Desert District, of the Bureau of Land Management, which comprise approximately fifteen thousand seven hundred acres, as generally depicted on a map entitled "Carrizo Gorge Wilderness—Proposed", and which shall be known as the Carrizo Gorge Wilderness;

(12) certain lands in the California Desert Conservation Area and Yuma District, of the Bureau of Land Management and within the Havasu National Wildlife Refuge, which comprise approximately sixty-eight thousand three hundred acres, as generally depicted on a map entitled "Chemehuevi Mountains Wilderness—Proposed", and which shall be known as the Chemehuevi Mountains Wilderness;

(13) certain lands in the Bakersfield District, of the Bureau of Land Management, which comprise approximately fifteen thousand seven hundred acres, as generally depicted on a map entitled "Chimney Peak Wilderness—Proposed", and which shall be known as the Chimney Peak Wilderness;

(14) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately one hundred and sixty-three thousand nine hundred and fifty acres, as generally depicted on a map entitled "Chuckwalla Mountains Wilderness—Proposed", dated January 1989, and which shall be known as the Chuckwalla Mountains Wilderness;

(15) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise fifty thousand six hundred and sixty acres, as generally depicted on a map entitled "Cleghorn Lakes Wilderness—Proposed", and which shall be known as the Cleghorn Lakes Wilderness: *Provided*, That the Secretary of the Interior may pursuant to an application filed by the Department of Defense, grant a right-of-way for, and authorize construction of, a road within the area depicted as "nonwilderness road corridor" on the map entitled "Cleghorn Lakes Wilderness—Proposed";

(16) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately forty thousand acres, as generally depicted on a map entitled "Clipper Mountains Wilderness—Proposed", dated January 1989,

and which shall be known as Clipper Mountains Wilderness;

(17) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately fifty thousand eight hundred and twenty acres, as generally depicted on a map entitled "Coso Range Wilderness—Proposed", and which shall be known as Coso Range Wilderness;

(18) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately eighteen thousand six hundred acres, as generally depicted on a map entitled "Coyote Mountains Wilderness—Proposed", and which shall be known as the Coyote Mountains Wilderness;

(19) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately eight thousand six hundred and forty acres, as generally depicted on a map entitled "Darwin Falls Wilderness—Proposed", and which shall be known as the Darwin Falls Wilderness;

(20) certain lands in the California Desert Conservation Area and the Yuma District, of the Bureau of Land Management, which comprise approximately forty-nine thousand six hundred and eighty acres, as generally depicted on a map entitled "Dead Mountains

Wilderness—Proposed", dated January 1989, and which shall be known as the Dead Mountains Wilderness;

(21) certain lands in the Bakersfield District, of the Bureau of Land Management, which comprise approximately thirty-six thousand three hundred acres, as generally depicted on a map entitled "Domelands Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be a part of the Domeland Wilderness as designated by Public Laws 93-632 and 98-425;

(22) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately sixteen thousand one hundred acres, as generally depicted on a map entitled "El Paso Mountains Wilderness—Proposed", and which shall be known as the El Paso Mountains Wilderness;

(23) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately twenty-six thousand three hundred acres, as generally depicted on a map entitled "Fish Creek Mountains Wilderness—Proposed", dated January 1989, and which shall be known as the Fish Creek Mountains Wilderness;

(24) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately ten thousand two hundred and forty acres, as generally depicted on a map entitled "Frog Creek Wilderness—Proposed", and which shall be known as the Frog Creek Wilderness;

(25) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-four thousand five hundred and ten acres, as generally depicted on a map entitled "Funeral Mountains Wilderness—Proposed", and which shall be known as the Funeral Mountains Wilderness;

(26) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-seven thousand seven hundred acres, as generally depicted on a map entitled "Golden Valley Wilderness—Proposed", and which shall be known as the Golden Valley Wilderness;

(27) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seventy thousand two hundred and forty acres, as generally depicted on a map entitled "Granite Mountains Wilderness—Pro-

posed", dated January 1987, and which shall be known as the Granite Mountains Wilderness;

(28) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-one thousand seven hundred and twenty acres, as generally depicted on a map entitled "Grass Valley Wilderness—Proposed", and which shall be known as the Grass Valley Wilderness;

(29) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately eight thousand eight hundred acres, as generally depicted on a map entitled "Great Falls Basin Wilderness—Proposed", and which shall be known as the Great Falls Basin Wilderness;

(30) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately twenty-two thousand two hundred and forty acres, as generally depicted on a map entitled "Hollow Hills Wilderness—Proposed", dated January 1989, and which shall be known as the Hollow Hills Wilderness;

(31) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately twenty-eight thousand

two hundred and sixty acres, as generally depicted on a map entitled "Ibex Wilderness—Proposed", and which shall be known as the Ibex Wilderness;

(32) certain lands in the California Desert Conservation Area, of the Bureau of Land Management and the Imperial National Wildlife Refuge, which comprise approximately thirty-nine thousand one hundred and twenty acres, as generally depicted on a map entitled "Indian Pass Wilderness—Proposed", and which shall be known as the Indian Pass Wilderness;

(33) certain lands in the California Desert Conservation Area and the Bakersfield District, of the Bureau of Land Management and within the Inyo National Forest, which comprise approximately two hundred and five thousand and sixty acres, as generally depicted on a map entitled "Inyo Mountains Wilderness—Proposed", dated January 1989, and which shall be known as the Inyo Mountains Wilderness;

(34) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-five thousand one hundred and sixty acres, as generally depicted on a map entitled "Jacumba Wilderness—Proposed", dated January 1989, and which shall be known as the Jacumba Wilderness;

(35) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately one hundred and twenty-nine thousand eight hundred and twenty acres, as generally depicted on a map entitled "Kelso Dunes Wilderness—Proposed", dated January 1989, and which shall be known as the Kelso Dunes Wilderness;

(36) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, and the Sequoia National Forest, which comprise approximately eighty-eight thousand two hundred and eighty acres, as generally depicted on a map entitled "Kiavah Wilderness—Proposed", and which shall be known as the Kiavah Wilderness;

(37) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately two hundred and fifty thousand and ten acres, as generally depicted on a map entitled "Kingston Range Wilderness—Proposed", dated January 1989, and which shall be known as the Kingston Range Wilderness;

(38) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately forty-nine thousand four hundred and eighty acres, as generally depicted on a

map entitled "Little Chuckwalla Mountains Wilderness—Proposed", dated January 1987, and which shall be known as the Little Chuckwalla Mountains Wilderness;

(39) certain lands in the California Desert Conservation Area and the Yuma District, of the Bureau of Land Management, and within the Imperial National Wildlife Refuge, which comprise approximately thirty-nine thousand eight hundred and sixty acres, as generally depicted on a map entitled "Little Picacho Wilderness—Proposed", and which shall be known as the Little Picacho Wilderness;

(40) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-three thousand two hundred and forty acres, as generally depicted on a map entitled "Malpais Mesa Wilderness—Proposed", dated January 1989, and which shall be known as the Malpais Mesa Wilderness;

(41) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately twenty-seven thousand one hundred acres, as generally depicted on a map entitled "Manly Peak Wilderness—Proposed", and which shall be known as the Manly Peak Wilderness;

(42) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-two thousand seven hundred and twenty acres, as generally depicted on a map entitled "Mecca Hills Wilderness—Proposed", dated January 1989, and which shall be known as the Mecca Hills Wilderness;

(43) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately forty-seven thousand three hundred and thirty acres, as generally depicted on a map entitled "Mesquite Wilderness—Proposed", dated January 1989, and which shall be known as the Mesquite Wilderness;

(44) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately eleven thousand three hundred acres, as generally depicted on a map entitled "Middle Park Canyon Wilderness—Proposed", and which shall be known as the Middle Park Canyon Wilderness;

(45) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately twenty-two thousand nine hundred acres, as generally depicted on a map en-

titled "Newberry Mountains Wilderness—Proposed", and which shall be known as the Newberry Mountains Wilderness;

(46) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately one hundred and ten thousand eight hundred and eighty acres, as generally depicted on a map entitled "Nopah Range Wilderness—Proposed", and which shall be known as the Nopah Range Wilderness;

(47) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-one thousand and forty acres, as generally depicted on a map entitled "North Algodones Dunes Wilderness—Proposed", dated January 1987, and which shall be known as the North Algodones Dunes Wilderness;

(48) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately ten thousand acres, as generally depicted on a map entitled "North Coso Range Wilderness—Proposed", and which shall be known as the North Coso Range Wilderness;

(49) certain lands in the California Desert Conservation Area, of the Bureau of Land Management,

which comprise approximately twenty-six thousand eight hundred and forty acres, as generally depicted on a map entitled "North Mesquite Mountains Wilderness—Proposed", dated January 1989, and which shall be known as the North Mesquite Mountains Wilderness;

(50) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately one hundred and forty-six thousand one hundred and ten acres, as generally depicted on a map entitled "Old Woman Mountains Wilderness—Proposed", and which shall be known as the Old Woman Mountains Wilderness;

(51) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately fifty-seven thousand five hundred acres, as generally depicted on a map entitled "Orocopia Mountains Wilderness—Proposed", dated January 1989, and which shall be known as the Orocopia Mountains Wilderness;

(52) certain lands in the California Desert Conservation Area and the Bakersfield District, of the Bureau of Land Management, which comprise approximately seventy-five thousand six hundred and forty acres, as generally depicted on a map entitled "Owens Peak

Wilderness—Proposed", dated January 1987, and which shall be known as the Owens Peak Wilderness;

(53) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seventy-four thousand eight hundred acres, as generally depicted on a map entitled "Pahrump Valley Wilderness—Proposed", and which shall be known as the Pahrump Valley Wilderness;

(54) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately two hundred and fourteen thousand four hundred and twenty acres, as generally depicted on a map entitled "Palen/McCoy Wilderness—Proposed", and which shall be known as the Palen/McCoy Wilderness;

(55) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-two thousand three hundred and twenty acres, as generally depicted on a map entitled "Palo Verde Mountains Wilderness—Proposed", dated January 1987, and which shall be known as the Palo Verde Mountains Wilderness;

(56) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seven thousand three hundred acres, as generally depicted on a map entitled "Picacho Peak Wilderness—Proposed", dated January 1989, and which shall be known as the Picacho Peak Wilderness;

(57) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately forty-one thousand six hundred and eighty acres, as generally depicted on a map entitled "Pinto Mountains Wilderness—Proposed", and which shall be known as the Pinto Mountains Wilderness;

(58) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seventy-two thousand six hundred acres, as generally depicted on a map entitled "Piper Mountain Wilderness—Proposed", dated January 1989, and which shall be known as Piper Mountain Wilderness;

(59) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-nine thousand forty acres, as generally depicted on a map entitled

"Piute Mountains Wilderness—Proposed", dated January 1989, and which shall be known as Piute Mountains Wilderness;

(60) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seventy-eight thousand eight hundred and eighty acres, as generally depicted on a map entitled "Resting Spring Range Wilderness—Proposed", dated January 1989, and which shall be known as the Resting Spring Range Wilderness;

(61) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately forty thousand eight hundred and twenty acres, as generally depicted on a map entitled "Rice Valley Wilderness—Proposed", and which shall be known as the Rice Valley Wilderness;

(62) certain lands in the California Desert Conservation Area and the Yuma District, of the Bureau of Land Management, which comprise approximately twenty-four thousand one hundred acres, as generally depicted on a map entitled "Riverside Mountains Wilderness—Proposed", and which shall be known as the Riverside Mountains Wilderness;

(63) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty thousand one hundred acres, as generally depicted on a map entitled "Rodman Mountains Wilderness—Proposed", dated January 1989, and which shall be known as the Rodman Mountains Wilderness,

(64) certain lands in the California Desert Conservation Area and the Bakersfield District, of the Bureau of Land Management, which comprise approximately fifty-two thousand six hundred acres, as generally depicted on a map entitled "Sacatar Trail Wilderness—Proposed", dated January 1987, and which shall be known as the Sacatar Trail Wilderness;

(65) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately fourteen thousand eight hundred acres, as generally depicted on a map entitled "Saddle Peak Hills Wilderness—Proposed", and which shall be known as the Saddle Peak Hills Wilderness;

(66) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-three thousand five hundred acres, as generally depicted on a map entitled "San Gorgonio Wilderness Additions—Pro-

posed", and which are hereby incorporated in, and which shall be deemed to be a part of the San Gorgonio Wilderness as designated by Public Laws 88-577 and 98-425;

(67) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately fifty-three thousand two hundred and forty acres, as generally depicted on a map entitled "Santa Rosa Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be a part of the Santa Rosa Wilderness designated by Public Law 98-425;

(68) certain lands in the California Desert District, of the Bureau of Land Management, which comprise approximately thirty-five thousand four hundred acres, as generally depicted on a map entitled "Sawtooth Mountains Wilderness—Proposed", and which shall be known as the Sawtooth Mountains Wilderness;

(69) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately one hundred and seventy-seven thousand acres, as generally depicted on a map entitled "Sheephole Valley Wilderness—Proposed", and which shall be known as the Sheephole Valley Wilderness;

(70) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately sixty-nine thousand eight hundred and forty acres, as generally depicted on a map entitled "Slate Range Wilderness—Proposed", dated January 1989, and which shall be known as the Slate Range Wilderness;

(71) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately eighty thousand four hundred and thirty acres, as generally depicted on a map entitled "Soda Mountains Wilderness—Proposed", dated January 1989, and which shall be known as the Soda Mountains Wilderness;

(72) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately sixty-one thousand nine hundred and fifty acres, as generally depicted on a map entitled "South Algodones Dunes Wilderness—Proposed", dated January 1989, and which shall be known as the South Algodones Dunes Wilderness;

(73) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately twenty-six thousand six hundred and fifty acres, as generally depicted on a map

entitled "South Avawatz Mountains Wilderness—Proposed", and which shall be known as the South Avawatz Mountains Wilderness;

(74) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately sixteen thousand seven hundred and eighty acres, as generally depicted on a map entitled "South Nopah Range Wilderness—Proposed", and which shall be known as the South Nopah Range Wilderness;

(75) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately nine thousand acres, as generally depicted on a map entitled "Stateline Wilderness—Proposed", and which shall be known as the Stateline Wilderness;

(76) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately eighty-one thousand six hundred acres, as generally depicted on a map entitled "Stepladder Mountains Wilderness—Proposed", and which shall be known as the Stepladder Mountains Wilderness;

(77) certain lands in the California Desert Conservation Area, of the Bureau of Land Management,

which comprise approximately forty-seven thousand six hundred and forty acres, as generally depicted on a map entitled "Surprise Canyon Wilderness—Proposed", and which shall be known as the Surprise Canyon Wilderness;

(78) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately seventeen thousand eight hundred and twenty acres, as generally depicted on a map entitled "Sylvania Mountains Wilderness—Proposed", and which shall be known as the Sylvania Mountains Wilderness;

(79) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately thirty-three thousand seven hundred and twenty acres, as generally depicted on a map entitled "Trilobite Wilderness—Proposed", dated January 1989, and which shall be known as the Trilobite Wilderness;

(80) certain lands in the California Desert Conservation Area, of the Bureau of Land Management, which comprise approximately one hundred and forty-four thousand five hundred acres, as generally depicted on a map entitled "Turtle Mountains Wilderness—Pro-

posed", and which shall be known as the Turtle Mountains Wilderness; and

(81) certain lands in the California Desert Conservation Area and the Yuma District, of the Bureau of Land Management, which comprise approximately seventy-five thousand five hundred acres, as generally depicted on a map entitled "Whipple Mountains Wilderness—Proposed", and which shall be known as the Whipple Mountains Wilderness.

ADMINISTRATION OF WILDERNESS AREAS

SEC. 103. Subject to valid existing rights, each wilderness area designated under this title shall be administered by the appropriate Secretary in accordance with the provisions of the Wilderness Act: *Provided,* That any reference in such provisions to the effective date of the Wilderness Act shall be deemed to be a reference to the effective date of this title and any reference to the Secretary of Agriculture shall be deemed to be a reference to the Secretary who has administrative jurisdiction over the area.

FILING OF MAPS AND DESCRIPTIONS

SEC. 104. As soon as practicable after enactment of this title, a map and a legal description on each wilderness area designated under this title shall be filed by the Secretary concerned with the Committee on Energy and Natural Resources of the United States Senate and the Committee on Interior and Insular Affairs of the House of Representatives, and each such map and description shall have the same force and effect as if included in this title: *Provided*, That correction of clerical and typographical errors in each such legal description and map may be made. Each such map and legal description shall be on file and available for public inspection in the office of the Director of the Bureau of Land Management, Department of the Interior, or the Chief of the Forest Service, Department of Agriculture, as is appropriate.

WILDERNESS REVIEW

SEC. 105. The Congress hereby finds and directs that lands in the California Desert Conservation Area, of the Bureau of Land Management not designated as wilderness or wilderness study areas by this Act have been adequately studied for wilderness designation pursuant to section 603 of the Federal Land Policy and Management Act (90 Stat. 2743; 43 U.S.C. 1701 et seq.), and are no longer subject to the requirement of section 603(c) of the Federal Land Policy and Management Act pertaining to the management of wilderness study areas in a manner that does not impair the suitability of such areas for preservation as wilderness.

DESIGNATION OF WILDERNESS STUDY AREA

SEC. 106. In furtherance of the provisions of the Wilderness Act of 1964, certain lands in the California Desert Conservation Area of the Bureau of Land Management which comprise eleven thousand two hundred acres as generally depicted on a map entitled "White Mountains Wilderness

Study Area—Proposed", dated January 1989, are hereby designated the White Mountains Wilderness Study Area and shall be administered by the Secretary of the Interior in accordance with the provisions of section 603(c) of the Federal Land Policy and Management Act.

TITLE II—DEATH VALLEY NATIONAL PARK

FINDINGS

SEC. 201. The Congress hereby finds that—

(1) proclamations by Presidents Herbert Hoover in 1933 and Franklin Roosevelt in 1937 established and expanded the Death Valley National Monument for the preservation of the unusual features of scenic, scientific, and educational interest therein contained;

(2) Death Valley National Monument is today recognized as a major unit of the National Park System, having extraordinary values enjoyed by millions of visitors;

(3) the Monument boundaries established in the 1930's exclude and thereby expose to incompatible development and inconsistent management, contiguous Federal lands of essential and superlative natural, ecological, geological, archeological, paleontological, cultural, historical, and wilderness values;

(4) Death Valley National Monument should be substantially enlarged by the addition of all contiguous

Federal lands of national park caliber, and afforded full recognition and statutory protection as a national park; and

(5) the wilderness within Death Valley should receive maximum statutory protection by designation pursuant to the Wilderness Act.

ESTABLISHMENT OF DEATH VALLEY NATIONAL PARK

SEC. 202. There is hereby established the Death Valley National Park, as generally depicted on a map entitled "Death Valley National Park", dated February 1986, which shall be on file and available for public inspection in the offices of the Superintendent of the Park and the Director of the National Park Service, Department of the Interior. The Death Valley National Monument is hereby abolished as such, and the lands and interests therein are hereby incorporated withhin and made part of the new Death Valley National Park.

TRANSFER AND ADMINISTRATION OF LANDS

SEC. 203. Upon enactment of this title, the Secretary of the Interior shall transfer the lands under the jurisdiction of the Bureau of Land Management depicted on the map described in section 202 of this title, without consideration, to the administrative jurisdiction of the Director of the National Park Service for administration as part of the National Park System. The boundaries of the public lands and the national parks shall be adjusted accordingly. The areas added to the

National Park System by this title shall be administered in accordance with the provisions of law generally applicable to units of the National Park System.

MAPS AND LEGAL DESCRIPTION

SEC. 204. Within six months after the enactment of this title, the Secretary shall file a legal description of the park designated under this title with the Energy and Natural Resources Committee of the United States Senate and the Interior and Insular Affairs Committee of the House of Representatives. Such legal description shall have the same force and effect as if included in this title, except that the Secretary may correct clerical and typographical errors in such legal description and in the map referred to in section 202. The legal description shall be on file and available for public inspection in the offices of the Superintendent of the Park and the Director of the National Park Service, Department of the Interior.

DISPOSITION UNDER MINING LAWS

SEC. 205. Subject to valid existing rights, the Federal lands and interests therein added to the park system by this title are withdrawn from disposition under the public land laws and from entry or appropriation under the mining laws of the United States, from the operation of the mineral leasing laws of the United States, and from operation of the Geothermal Steam Act of 1970.

STUDY AS TO VALIDITY OF MINING CLAIMS

SEC. 206. The Secretary shall not approve any plan of operation prior to determining the validity of any unpatented mining claims within the additions to the park system and submit to Congress recommendations as to whether any valid or patented claims should be acquired by the United States, including the estimated acquisition costs of such claims, and a discussion of the environmental consequences of the extraction of minerals from these lands.

TITLE III—JOSHUA TREE NATIONAL PARK

FINDINGS

SEC. 301. The Congress hereby finds that—

(1) a proclamation by President Franklin Roosevelt in 1936 established Joshua Tree National Monument to protect various objects of historical and scientific interest;

(2) Joshua Tree National Monument today is recognized as a major unit of the National Park System, having extraordinary values enjoyed by millions of visitors;

(3) the Monument boundaries as modified in 1950 and 1961 exclude and thereby expose to incompatible development and inconsistent management, contiguous Federal lands of essential and superlative natural, eco-

logical, archeological, paleontological, cultural, historical and wilderness values;

(4) Joshua Tree National Monument should be enlarged by the addition of contiguous Federal lands of national park caliber, and afforded full recognition and statutory protection as a national park; and

(5) the nondesignated wilderness within Joshua Tree should receive maximum statutory protection by designation pursuant to the Wilderness Act.

ESTABLISHMENT OF JOSHUA TREE NATIONAL PARK

SEC. 302. There is hereby established the Joshua Tree National Park, as generally depicted on a map entitled "Joshua Tree National Park", dated January 1989, which shall be on file and available for public inspection in the offices of the Superintendent of the Park and the Director of the National Park Service, Department of the Interior. The Joshua Tree National Monument is hereby abolished as such, and the lands and interests therein are hereby incorporated within and made part of the new Joshua Tree National Monument.

TRANSFER AND ADMINISTRATION OF LANDS

SEC. 303. Upon enactment of this title, the Secretary of the Interior shall transfer the lands under the jurisdiction of the Bureau of Land Management depicted on the map described in section 302 of this title, without consideration, to the administrative jurisdiction of the Director of the National

Park Service for administration as part of the National Park System. The boundaries of the public lands and the national parks shall be adjusted accordingly. The areas added to the National Park System by this title shall be administered in accordance with the provisions of law generally applicable to units of the National Park System.

MAPS AND LEGAL DESCRIPTION

SEC. 304. Within six months after the enactment of this title, the Secretary shall file a legal description of the park designated by this title with the Energy and Natural Resources Committee of the United States Senate and the Interior and Insular Affairs Committee of the House of Representatives. Such legal description shall have the same force and effect as if included in this title, except that the Secretary may correct clerical and typographical errors in such legal description and in the map referred to in section 302. The legal description shall be on file and available for public inspection in the offices of the Superintendent of the Park and the Director of the National Park Service, Department of the Interior.

DISPOSITION UNDER MINING LAWS

SEC. 305. Subject to valid existing rights, Federal lands and interests therein added to the park system by this title are withdrawn from disposition under the public lands laws and from entry or appropriation under the mining laws of the United States, from the operation of the mineral leasing laws of the United States, and from the operation of the Geothermal Steam Act of 1970.

STUDY AS TO VALIDITY OF MINING CLAIMS

SEC. 306. The Secretary shall not approve any plan of operation prior to determining the validity of any unpatented mining claims within the park and submit to Congress recommendations as to whether any valid or patented claims should be acquired by the United States, including the estimated acquisition costs of such claims, and a discussion of the environmental consequences of the extraction of minerals from these lands.

TITLE IV—MOJAVE NATIONAL PARK

FINDINGS

SEC. 401. The Congress hereby finds that—

(1) Death Valley and Joshua Tree National Parks, as established by this Act, protect unique and superlative desert resources, but do not embrace the particular ecosystems and transitional desert type found in the Mojave Desert area lying between them on public lands now afforded only impermanent administrative designation as a national scenic area;

(2) the Mojave Desert area possesses outstanding natural, cultural, historical, and recreational values meriting statutory designation and recognition as a unit of the National Park System;

(3) the Mojave Desert area should be afforded full recognition and statutory protection as a national park; and

(4) the wilderness within the Mojave Desert should receive maximum statutory protection by designation pursuant to the wilderness Act.

ESTABLISHMENT OF THE MOJAVE NATIONAL PARK

SEC. 402. There is hereby established the Mojave National Park, comprising approximately one million five hundred thousand acres, as generally depicted on a map entitled "Mojave National Park", dated February 1986, which shall be on file and available for inspection in the offices of the Director of the National Park Service, Department of the Interior.

TRANSFER OF LANDS

SEC. 403. Upon enactment of this title, the Secretary of the Interior (hereinafter in this title referred to as the "Secretary") shall transfer the lands under the jurisdiction of the Bureau of Land Management depicted on the map described in section 402 of this title, without consideration, to the administrative jurisdiction of the Director of the National Park Service. The boundaries of the public lands shall be adjusted accordingly.

MAPS AND LEGAL DESCRIPTION

SEC. 404. Within six months after the enactment of this title, the Secretary shall file a legal description of the park designated under this title with the Energy and Natural Resources Committee of the United States Senate and the Interior and Insular Affairs Committee of the House of Representatives. Such legal description shall have the same force and effect as if included in this title, except that the Secretary may correct clerical and typographical errors in such legal description and in the map referred to in section 402. The legal description shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.

ABOLISHMENT OF SCENIC AREA

SEC. 405. The East Mojave National Scenic Area, designated on January 13, 1981 (46 FR 3994), and modified on August 9, 1983 (48 FR 36210), is hereby abolished.

ADMINISTRATION OF LANDS

SEC. 406. The Secretary shall administer the park in accordance with this title and with the provisions of law generally applicable to units of the National Park System, including the Act entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 (39 Stat. 535; 16 U.S.C. 1–4).

DISPOSITION UNDER MINING LAWS

SEC. 407. Subject to valid existing rights, federal lands within the park, and interests therein, are withdrawn from disposition under the public land laws and from entry or appropriation under the mining laws of the United States, from the operation of the mineral leasing laws of the United States, and from operation of the Geothermal Steam Act of 1970.

STUDY AS TO VALIDITY OF MINING CLAIMS

SEC. 408. The Secretary shall not approve any plan of operation prior to determining the validity of any unpatented mining claims within the park and submit to Congress recommendations as to whether any valid or patented claims should be acquired by the United States, including the estimated acquisition costs of such claims, and a discussion of the environmental consequences of the extraction of minerals from these lands.

REGULATION OF MINING

SEC. 409. Subject to valid existing rights, all mining claims located within the park shall be subject to such reasonable regulations as the Secretary may prescribe to assure that mining will, to the maximum extent practicable, be consistent with the protection of the scenic, scientific, cultural and other resources of the park, and any patent which may be issued after the date of enactment of this title shall convey title only to the minerals together with the right to use the surface of lands for mining purposes subject to such reasonable regulations.

GRAZING RIGHTS

SEC. 410. The Secretary shall permit those persons holding currently valid grazing permits within the boundary of the park to continue to exercise such permits consistent with other applicable law: *Provided, however,* That upon expiration of the current term of such permits, the permits shall not be renewed.

UTILITY RIGHTS OF WAY

SEC. 411. Nothing in this title shall have the effect of terminating any validly issued right-of-way or right-of-use within the boundary of the park issued, granted, or permitted for—

(a) systems for transmission or distribution of electric energy,

(b) pipelines for the transmission or distribution of natural gas or oil, and

(c) communication cables or lines.

PREPARATION OF MANAGEMENT PLAN

SEC. 412. Within three years of the date of enactment of this title, the Secretary shall submit to the Energy and Natural Resources Committee of the United States Senate and the Interior and Insular Affairs Committee of the House of Representatives a detailed and comprehensive management plan for the park. Such plan shall place emphasis on historical and cultural sites and ecological and wilderness values within the boundaries of the park and shall evaluate the feasibility of using the Kelso Depot and existing railroad corridor to provide public access to and a facility for special interpretive, educational and scientific programs within the park.

GRANITE MOUNTAIN NATURAL RESERVE

SEC. 413. (a) There is hereby designated the Granite Mountains Natural Reserve within the park comprising approximately nine thousand acres as generally depicted on a map entitled "Granite Mountains Natural Reserve", dated January 1989.

(b) Upon enactment of this title, the Secretary of the Interior shall enter into a cooperative management agreement with the University of California for the purposes of managing the lands within the Granite Mountains Natural Reserve. Such cooperative agreement shall ensure continuation of arid lands research and educational activities of the University of California, consistent with the provisions of law generally applicable to units of the National Park System.

CONSTRUCTION OF VISITOR CENTER

SEC. 414. The Secretary is authorized to construct a visitor center in the park for the purpose of providing information through appropriate displays, printed material, and other interpretive programs, about the resources of the park.

ACQUISITION OF LANDS

SEC. 415. The Secretary is authorized to acquire all lands and interest in lands within the boundary of the park by donation, purchase, or exchange, except that—

(1) any lands or interests therein within the boundary of the park which are owned by the State of California, or any political subdivision thereof, may be acquired only by donation or exchange; and

(2) lands of interests therein within the boundary of the park which are not owned by the State of California or any political subdivision thereof may be acquired only with the consent of the owner thereof unless the Secretary determines, after written notice to the owner and after opportunity for comment, that the property is being developed, or proposed to be developed, in a manner which is detrimental to the integrity of the park or which is otherwise incompatible with the purposes of this title.

AUTHORIZATION OF APPROPRIATIONS

SEC. 417. There are hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this title.

TITLE V—NATIONAL PARK WILDERNESS

DESIGNATION OF WILDERNESS

SEC. 501. The following lands are hereby designated as wilderness in accordance with section (3) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132(c)) and shall be administered by the Secretary of the Interior in accordance with the applicable provisions of the Wilderness Act—

(1) Death Valley National Park Wilderness, comprising approximately three million one hundred and fifty-nine thousand seven hundred and twenty acres, and potential wilderness additions comprising approximately twenty thousand four hundred acres, as generally depicted on a map entitled "Death Valley National Park Wilderness—Proposed", dated January 1987, and which shall be known as the Death Valley Wilderness;

(2) Joshua Tree National Park Wilderness Additions, comprising approximately one hundred and thirty-three thousand five hundred acres, as generally depicted on a map entitled "Joshua Tree National Park Wilderness Additions—Proposed", dated January 1989, and which are hereby incorporated in, and which shall be deemed to be a part of the Joshua Tree Wilderness as designated by Public Law 94–567; and

(3) Mojave National Park Wilderness, comprising approximately seven hundred and forty-seven thousand nine hundred and forty acres, as generally depicted on a map entitled "Mojave National Park Wilderness—Proposed", dated January 1989, and which shall be known as the Mojave Wilderness.

FILING OF MAPS AND DESCRIPTIONS

SEC. 502. A map and description of the boundaries of the areas designated in section 501 of this title shall be on file and available for public inspection in the Office of the Director of the National Park Service, Department of the Interior, and in the Office of the Superintendent of each area designated in section 501. As soon as practicable after this title takes effect, maps of the wilderness areas and descriptions of their boundaries shall be filed with the Committee on Energy and Natural Resources of the United States Senate and the Committee on Interior and Insular Affairs of the House of Representatives, and such maps and descriptions shall have the same force and effect as if included in this title: *Provided*, That correction of clerical and typographical errors in such maps and descriptions may be made.

CESSATION OF CERTAIN USES

SEC. 503. Any lands (in section 501 of this title) which represent potential wilderness additions upon publication in the Federal Register of a notice by the Secretary of the Interior that all uses thereon prohibited by the Wilderness Act have ceased, shall thereby be designated wilderness. Lands designated as potential wilderness additions shall be managed by the Secretary of the Interior insofar as practicable as wilderness until such time as said lands are designated as wilderness.

ADMINISTRATION OF WILDERNESS AREAS

SEC. 504. The areas designated by section 501 of this title as wilderness shall be administered by the Secretary of the Interior in accordance with the applicable provisions of the Wilderness Act governing areas designated by that title as wilderness, except that any reference in such provisions to the effective date of the Wilderness Act shall be deemed to be a reference to the effective date of this title, and where appropriate, and reference to the Secretary of Agriculture shall be deemed to be a reference to the Secretary of the Interior.

TITLE VI—MISCELLANEOUS PROVISIONS

TRANSFER OF LANDS TO RED ROCK CANYON STATE PARK

SEC. 601. Upon enactment of this title, the Secretary of the Interior shall transfer to the State of California certain lands within the California Desert Conservation Area, California, of the Bureau of Land Management, comprising approximately twenty thousand five hundred acres, as generally depicted on a map entitled "Red Rock Canyon State Park Additions", dated January 1989, for inclusion in the State of California Park System. Should the State of California cease to manage these lands as part of the State park system, ownership of the lands shall revert to the Department of the Interior to be managed as part of the California Desert Conservation Area to provide maximum protection for the area's scenic and scientific values.

DESERT LILY SANCTUARY

SEC. 602. (a) There is hereby established the Desert Lily Sanctuary within the California Desert Conservation Area, California, of the Bureau of Land Management, comprising approximately two thousand and forty acres, as generally depicted on a map entitled "Desert Lily Sanctuary", dated February 1986. The Secretary of the Interior shall administer the area to provide maximum protection to the desert lily.

(b) Subject to valid existing rights, Federal lands within the sanctuary, and interests therein, are withdrawn from disposition under the public land laws and from entry or appropriation under the mining laws of the United States, from the operation of the mineral leasing laws of the United States, and from operation of the Geothermal Steam Act of 1970.

INDIAN CANYONS NATIONAL HISTORIC SITE

SEC. 603. (a) There is hereby established the Indian Canyons National Historic Site, comprising approximately four hundred and ninety acres, as generally depicted on a map entitled "Indian Canyons National Historic Site", dated February 1986.

(b) Upon enactment of this title, the Secretary of the Interior shall enter into negotiations to acquire by exchange the privately owned lands or interests therein within the national historic site designated by subsection (a). The value of the properties so exchanged either shall be equal or, if they are not equal, the values shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require.

(c) The Secretary shall enter into a cooperative management agreement with the Agua Caliente Band of Cahuilla Indians for the purposes of managing the Indian Canyons National Historic Site. Upon execution of the management agreement, the Secretary shall transfer title of the land to be held in trust for the Agua Caliente Band of Cahuilla Indians as part of the Agua Caliente Indian Reservation and such transfer shall remain effective so long as the agreement remains in force and in effect.

LAND TENURE ADJUSTMENTS

Sec. 604. In preparing land tenure adjustment decisions within the California Desert Conservation Area, of the Bureau of Land Management, the Secretary shall give priority to consolidating Federal ownership within the national park units and wilderness areas designated by this Act.

STATE EXCHANGES

Sec. 605. (a) Upon the request of the State of California and pursuant to the provisions of this section, the Secretary of the Interior shall exchange public lands or interests in lands elsewhere in the State of California of approximately equal value and selected by the State of California, acting through the State lands commission, for any lands or interests therein owned by the State located within the boundaries of the wilderness or the parks which the State wishes to exchange with the United States.

(b) Within six months from the date of enactment of this Act, the Secretary of the Interior shall notify the chairman of the State lands commission what State lands or interests therein are within the wilderness areas and national park units designated by this Act. The notice shall contain a listing of all public lands or interests therein within the boundaries of the State of California which have not been withdrawn from entry and which the Secretary, pursuant to the provisions of sections 202 and 206 of the Federal Land Policy and Management Act of 1976, has identified as appropriate for transfer to the State in exchange for State lands. Such listing shall be updated at least annually.

(c) If the chairman of the State lands commission gives notice to the Secretary of the State's desire to obtain public lands so listed, the Secretary shall notify the chairman in writing whether the Department of the Interior considers the state lands within the wilderness areas and national park units to be of equal value to the list of lands the chairman has indicated the State wishes to obtain. It is the sense of the Congress that the exchange of lands and interests therein with the State pursuant to this section should be completed within two years after the date of enactment of this Act.

MINERAL EXCHANGES

Sec. 606. (a) The Secretary of the Interior is authorized to exchange the Federal mineral interests in lands within the State of California for private mineral interests in lands located within the boundaries of the wilderness areas and national park units designated by this Act if—

(1) the owner of such private mineral interests has made available to the Secretary all information requested by the Secretary as to the respective values of the private and Federal mineral interests to be exchanged; and

(2) on the basis of information obtained pursuant to paragraph (1) and any other information available, the Secretary has determined that the mineral interests to be exchanged are of approximately equal value; and

(3) the Secretary has determined—

(A) that except insofar as otherwise provided in this section, the exchange is not inconsistent with the Federal Land Policy and Management Act of 1976; and

(B) that the exchange is in the public interest.

(b) The Secretary shall file a legal description of the mineral interest areas exchanged pursuant to this section with the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the United States Senate. Such legal description shall have the same force and effect as if included in this Act, except that the Secretary may correct clerical and typographical errors in such legal description. The legal description shall be on file and available for public inspection in the offices of the Director of the Bureau of Land Management, Department of the Interior.

(c) It is the sense of the Congress that all exchanges pursuant to this section shall be completed no later than three years after the date of enactment of this Act.

NATIVE AMERICAN USES

SEC. 607. In recognition of the past use of the parks and wilderness areas by Indian people for traditional cultural and religious purposes, the Secretary shall insure nonexclusive access to the parks and wilderness areas by Indian people for such traditional cultural and religious purposes. Such access shall be consistent with the purpose and intent of the American Indian Religious Freedom Act of August 11, 1978 (42 U.S.C. 1996).

TITLE VII—MILITARY ACTIVITIES

MILITARY OVERFLIGHTS

SEC. 701. The Congress hereby finds that—

(1) The national parks and wilderness areas designated by this Act lie within a region critical to providing training, research, and development for the Armed Forces of the United States and its allies;

(2) there is a lack of alternative sites available for these military training, testing and research activities;

(3) continued use of lands and airspace in the California desert region is essential for military purposes; and

(4) these military activities in the California desert have not impaired the natural and cultural values of the areas designated as parks and wilderness by this Act.

SEC. 702. Nothing in this Act, including the designation of new units of the National Park or Wilderness Preservation Systems (or any additions to existing units), shall preclude, limit, or otherwise affect low level overflights of military aircraft in the California Desert in approximately the same location and degree as existed prior to the date of enactment of this Act.

MILITARY WITHDRAWALS

SEC. 703. (a) CHINA LAKE.—(1) Subject to valid existing rights and except as otherwise provided in this title, the Federal lands referred to in paragraph (2), and all other areas within the boundary of such lands as depicted on the map specified in such paragraph which may become subject to the operation of the public land laws, are hereby withdrawn from all forms of appropriation under the public land laws (including the mining laws and the mineral leasing laws). Such lands are reserved for use by the Secretary of the Navy for—

(A) use as a research, development, test, and evaluation laboratory;

(B) use as a range for air warfare weapons and weapon systems;

(C) use as a high hazard training area for aerial gunnery, rocketry, electronic warfare and countermeasures, tactical maneuvering and air support; and

(D) subject to the requirements of section 4(f), other defense-related purposes consistent with the purposes specified in this paragraph.

(2) The lands referred to in paragraph (1) are the Federal lands, located within the boundaries of the China Lake Naval Weapons Center, comprising approximately one million one hundred thousand acres in Inyo, Kern, and San Bernardino Counties, California, as generally depicted on a map entitled "China Lake Naval Weapons Center Withdrawal—Proposed", dated January 1985, and filed in accordance with section 704.

(b) CHOCOLATE MOUNTAINS.—(1) Subject to valid existing rights and except as otherwise provided in this title, the Federal lands referred to in paragraph (2), and all other areas within the boundary of such lands as depicted on the map specified in such paragraph which may become subject to the operation off the public land laws, are hereby withdrawn from all forms of appropriation under the public land laws (including the mining laws and the mineral leasing and geothermal leasing laws.) Such lands are reserved for use by the Secretary of the Navy for—

(A) testing and training for aerial bombing, missile firing, tactical maneuvering and air support; and

(B) subject to the provisions of section 4(f), other defense-related purposes consistent with the purposes specified in this paragraph.

(2) The lands referred to in paragraph (1) are the Federal lands comprising approximately two hundred and twenty-seven thousand three hundred and sixty-nine acres in Imperial and Riverside Counties, California, as generally depicted on a map entitled "Chocolate Mountain Aerial Gunnery Range Withdrawal", dated July 1987 and filed in accordance with section 704.

MAPS AND LEGAL DESCRIPTIONS

SEC. 702. (a) PUBLICATION AND FILING REQUIREMENT.—As soon as practicable after the date of enactment of this title, the Secretary of the Interior shall—

(1) publish in the Federal Register a notice containing the legal description of the lands withdrawn and reserved by this title; and

(2) file maps and the legal description of the lands withdrawn and reserved by this title with the Committee on Energy and Natural Resources of the United States Senate and with the Committee on Interior and

Insular Affairs of the United States House of Representatives.

(b) TECHNICAL CORRECTIONS.—Such maps and legal descriptions shall have the same force and effect as if they were included in this title except that the Secretary of the Interior may correct clerical and typographical errors in such maps and legal descriptions.

(c) AVAILABILITY FOR PUBLIC INSPECTION.—Copies of such maps and legal descriptions shall be available for public inspection in the Office of the Director of the Bureau of Land Management, Washington, District of Columbia; the office of the director, California State Office of the Bureau of Land Management, Sacramento, California; the office of the commander of the Naval Weapons Center, China Lake, California; the office of the commanding officer, Marine Corps Air Station, Yuma, Arizona; and the Office of the Secretary of Defense, Washington, District of Columbia.

(d) REIMBURSEMENT.—The Secretary of Defense shall reimburse the Secretary of the Interior for the cost of implementing this section.

MANAGEMENT OF WITHDRAWN LANDS

SEC. 705. (a) MANAGEMENT BY THE SECRETARY OF THE INTERIOR.—(1) Except as provided in subsection (g), during the period of the withdrawal the Secretary of the Interior shall manage the lands withdrawn under section 701 pursuant to the Federal Land Policy and Management Act of

1976 (43 U.S.C. 1701 et seq.) and other applicable law, including this title.

(2) To the extent consistent with applicable law and Executive orders, the lands withdrawn under section 703 may be managed in a manner permitting—

(A) the continuation of grazing pursuant to applicable law and Executive orders where permitted on the date of enactment of this title;

(B) protection of wildlife and wildlife habitat;

(C) control of predatory and other animals;

(D) recreation;

(E) the prevention and appropriate suppression of brush and range fires resulting from nonmilitary activities; and

(F) geothermal leasing on the lands withdrawn under section 703(a) (relating to China Lake).

(3)(A) All nonmilitary use of such lands, including uses described in paragraph (2), shall be subject to such conditions and restrictions as may be necessary to permit the military use of such lands for the purposes specified in or authorized pursuant to this title.

(B) the Secretary of the Interior may issue any lease, easement, right-of-way, or other authorization with respect to the nonmilitary use of such lands only with the concurrence of the Secretary of the Navy.

(b) CLOSURE TO PUBLIC.—(1) If the Secretary of the Navy determines that military operations, public safety, or national security require the closure to public use of any road, trail, or other portion of the lands withdrawn by this title, the Secretary of the Navy, after consultation with the Secretary of the Interior, may take such action as the Secretary of the Navy determines necessary or desirable to effect and maintain such closure.

(2) Any such closure shall be limited to the minimum areas and periods which the Secretary of the Navy determines are required to carry out this subsection.

(3) Before and during any closure under this subsection, the Secretary of the Interior shall—

(A) keep appropriate warning notices posted; and

(B) take appropriate steps to notify the public concerning such closures.

(c) MANAGEMENT PLAN.—The Secretary of the Interior (after consultation with the Secretary of the Navy) shall develop a plan for the management of each area withdrawn under section 703 during the period of such withdrawal. Each plan shall—

(1) be consistent with applicable law;

(2) be subject to conditions and restrictions specified in subsection (a)(3);

(3) include such provisions as may be necessary for proper management and protection of the resources and values of such area; and

(4) be developed not later than three years after the date of enactment of this title.

(d) Brush and Range Fires.—The Secretary of the Navy shall take necessary precautions to prevent and suppress brush and range fires occurring within and outside the lands withdrawn under section 703 as a result of military activities and may seek assistance from the Bureau of Land Management in the suppression of such fires. The memorandum of understanding required by subsection (e) shall provide for Bureau of Land Management assistance in the suppression of such fires, and for a transfer of funds from the Department of the Navy to the Bureau of Land Management as compensation for such assistance.

(e) Memorandum of Understanding.—(1) The Secretary of the Interior and the Secretary of the Navy shall (with respect to each land withdrawal under section 703) enter into a memorandum of understanding to implement the management plan developed under subsection (c). Any such memorandum of understanding shall provide that the Director of the Bureau of Land Management shall provide assistance in the suppression of fires resulting from the military use of lands withdrawn under section 703 if requested by the Secretary of the Navy.

(2) The duration of any memorandum shall be the same as the period of the withdrawal of the lands under section 703.

(f) Additional Military Uses.—Lands withdrawn by section 703 may be used for defense-related uses other than those specified in such section. The Secretary of Defense shall promptly notify the Secretary of the Interior in the event that the lands withdrawn by this title will be used for defense-related purposes other than those specified in section 703. Such notification shall indicate the additional use or uses involved, the proposed duration of such uses, and the extent to which such additional military uses of the withdrawn lands will require that additional or more stringent conditions or restrictions be imposed on otherwise-permitted nonmilitary uses of the withdrawn land or portions thereof.

(g) Management of China Lake.—(1) The Secretary of the Interior may assign the management responsibility for the lands withdrawn under section 703(a) to the Secretary of the Navy who shall manage such lands, and issue leases, easements, rights-of-way, and other authorizations, in accordance with this title and cooperative management arrangements between the Secretary of the Interior and the Secretary of the Navy. In the case that the Secretary of the

Interior assigns such management responsibility to the Secretary of the Navy before the development of the management plan under subsection (c), the Secretary of the Navy (after consultation with the Secretary of the Interior) shall develop such management plan.

(2) The Secretary of the Interior shall be responsible for the issuance of any lease, easement, right-of-way, and other authorization with respect to any activity which involves both the lands withdrawn under section 703(a) and any other lands. Any such authorization shall be issued only with the consent of the Secretary of the Navy and, to the extent that such activity involves lands withdrawn under section 703(a), shall be subject to such conditions as the Secretary of the Navy may prescribe.

(3) The Secretary of the Navy shall prepare and submit to the Secretary of the Interior an annual report on the status of the natural and cultural resources and values of the lands withdrawn under section 703(a). The Secretary of the Interior shall transmit such report to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the United States Senate.

(4) Neither this title nor any other provision of law shall be construed to prohibit the Secretary of the Interior from issuing any lease for the development and utilization of geo-

thermal steam and associated geothermal resources on the lands withdrawn under section 703(a) pursuant to the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.) but no such lease shall be issued without the concurrence of the Secretary of the Navy.

(5) This title shall not affect the geothermal exploration and development authority of the Secretary of the Navy under section 2689 of title 10, United States Code, except that the Secretary of the Navy shall obtain the concurrence of the Secretary of the Interior before taking action under that section with respect to the lands withdrawn under section 703(a).

DURATION OF WITHDRAWALS

SEC. 706. (a) DURATION—The withdrawal and reservation established by this title shall terminate fifteen years after the date of enactment of this title.

(b) DRAFT ENVIRONMENTAL IMPACT STATEMENT.—No later than twelve years after the date of enactment of this title, the Secretary of the Navy shall publish a draft environmental impact statement concerning continued or renewed withdrawal of any portion of the lands withdrawn by this title for which the Secretary intends to seek such continued or renewed withdrawal. Such draft environmental impact statement shall be consistent with the requirements of the National Environmental Policy Act of 1969 (41 U.S.C. 4321 et seq.) applicable to such a draft environmental impact statement. Prior to the termination date specified in subsection (a), the Secretary of the Navy shall hold a public hearing on any draft environmental impact statement. Such hearing shall be held in the State of California in order to receive public comments on the alternatives and other matters included in such draft environmental impact statement.

(c) EXTENSIONS OR RENEWALS.—The withdrawals established by this title may not be extended or renewed except by an Act or joint resolution.

ONGOING DECONTAMINATION

SEC. 707. (a) PROGRAM.—Throughout the duration of the withdrawals made by this title, the Secretary of the Navy, to the extent funds are made available, shall maintain a program of decontamination of lands withdrawn by this title at lease at the level of decontamination activities performed on such lands in fiscal year 1986.

(b) REPORTS.—At the same time as the President transmits to the Congress the President's proposed budget for the first fiscal year beginning after the date of enactment of this title and for each subsequent fiscal year, the Secretary of the Navy shall transmit to the Committees on Appropriations, Armed Services, and Energy and Natural Resources of the United States Senate and to the Committees on Appropriations, Armed Services, and Interior and Insular Affairs of the House of Representatives a description of the decontamination efforts undertaken during the previous fiscal year on such lands and the decontamination activities proposed for such lands during the next fiscal year including—

(1) amounts appropriated and obligated or expended for decontamination of such lands;

(2) the methods used to decontaminate such lands;

(3) amount and types of contaminants removed from such lands;

(4) estimated types and amounts of residual contamination on such lands; and

(5) an estimate of the costs for full decontamination of such lands and the estimate of the time to complete such decontamination.

REQUIREMENTS FOR RENEWAL

SEC. 708. (a) NOTICE AND FILING.—(1) No later than three years prior to the termination of the withdrawn and reservation established by this title, the Secretary of the Navy shall advise the Secretary of the Interior as to whether or not the Secretary of the Navy will have a continuing military need for any of the lands withdrawn under section 703 after the termination date of such withdrawal and reservation.

(2) If the Secretary of the Navy concludes that there will be a continuing military need for any of such lands after the termination date, the Secretary shall file an application for extension of the withdrawal and reservation of such needed lands in accordance with the regulations and proce-

dures of the Department of the Interior applicable to the extension of withdrawals of lands for military uses.

(3) If, during the period of withdrawal and reservation, the Secretary of the Navy decides to relinquish all or any of the lands withdrawn and reserved by this title, the Secretary shall file a notice of intention to relinquish with the Secretary of the Interior.

(b) CONTAMINATION.—(1) Before transmitting a notice of intention to relinquish pursuant to subsection (a), the Secretary of Defense, acting through the Department of the Navy, shall prepare a written determination concerning whether and to what extent the lands that are to be relinquished are contaminated with explosive, toxic, or other hazardous materials.

(2) A copy of such determination shall be transmitted with the notice of intention to relinquish.

(3) Copies of both the notice of intention to relinquish and the determination concerning the contaminated state of the lands shall be published in the Federal Register by the Secretary of the Interior.

(c) DECONTAMINATION.—If any land which is the subject of a notice of intention to relinquish pursuant to subsection (a) is contaminated, the Secretary of the Navy determines that decontamination is practicable and economically feasible (taking into consideration the potential future use and value of the land) and that upon decontamination the land could be opened to operation of some or all of the public land laws, including the mining laws, the Secretary of the Navy shall decontaminate the land to the extent that funds are appropriated for such purpose.

(d) ALTERNATIVES.—If the Secretary of the Interior, after consultation with the Secretary of the Navy, concludes that decontamination of any land which is the subject of a notice of intention to relinquish pursuant to subsection (a) is not practicable or economically feasible, or that the land cannot be decontaminated sufficiently to be opened to operation of some or all of the public land laws, of if Congress does not appropriate a sufficient amount of funds for the decontamination of such land, the Secretary of the Interior shall not be required to accept the land proposed for relinquishment.

(e) STATUS OF CONTAMINATED LANDS.—If, because of their contaminated state, the Secretary of the Interior declines to accept jurisdiction over lands withdrawn by this title which have been proposed for relinquishment, or if at the expiration of the withdrawal made by this title the Secretary of the Interior determines that some of the lands withdrawn by this title are contaminated to an extent which prevents opening such contaminated lands to operation of the public land laws—

(1) the Secretary of the Navy shall take appropriate steps to warn the public of the contaminated state of such lands and any risks associated with entry onto such lands;

(2) after the expiration of the withdrawal, the Secretary of the Navy shall undertake no activities on such lands except in connection with decontamination of such lands; and

(3) the Secretary of the Navy shall report to the Secretary of the Interior and to the Congress concerning the status of such lands and all actions taken in furtherance of this subsection.

(f) REVOCATION AUTHORITY.—Notwithstanding any other provision of law, the Secretary of the Interior, upon deciding that it is in the public interest to accept jurisdiction over lands proposed for relinquishment pursuant to subsection (a), is authorized to revoke the withdrawal and reservation established by this title as it applies to such lands. Should the decision be made to revoke the withdrawal and reservation, the Secretary of the Interior shall publish in the Federal Register an appropriate order which shall—

(1) terminate the withdrawal and reservation;

(2) constitute official acceptance of full jurisdiction over the lands by the Secretary of the Interior; and

(3) state the date upon which the lands will be opened to the operation of some or all of the public land laws, including the mining laws.

DELEGABILITY

SEC. 709. (a) DEFENSE.—The functions of the Secretary of Defense or the Secretary of the Navy under this title may be delegated.

(b) INTERIOR.—The functions of the Secretary of the Interior under this title may be delegated, except that an order described in section 708(f) may be approved and signed only by the Secretary of the Interior, the Under Secretary of the Interior, or an Assistant Secretary of the Department of the Interior.

HUNTING, FISHING, AND TRAPPING

SEC. 710. All hunting, fishing, and trapping on the lands withdrawn by this title shall be conducted in accordance with the provisions of section 2671 of title 10, United States Code.

IMMUNITY OF THE UNITED STATES

SEC. 711. The United States and all departments or agencies thereof shall be held harmless and shall not be liable for any injuries or damages to persons or property suffered in the course of any geothermal leasing or other authorized nonmilitary activity conducted on lands described in section 703 of this title.

EL CENTRO RANGES

SEC. 712. The Secretary of the Interior is authorized to permit the Secretary of the Navy to use until January 1, 1990, the public lands in Imperial County, California, generally depicted on the map entitled "El Centro Ranges", dated July 1987, for the same purpose and to no greater extent than such lands were used by the Secretary of the Navy as of July 1, 1987. Such permission shall be through a cooperative agreement or other appropriate means. Such use shall be subject to such terms and conditions as the Secretary of the Interior may require so as to protect the natural, environmental, scientific, cultural, and other resources and values of such lands and to minimize the extent to which such use by the Secretary of the Navy impedes or restricts use of such or other public lands for recreational and other purposes.

STATEMENT OF HON. ALAN CRANSTON, U.S. SENATOR FROM CALIFORNIA

Senator Cranston. Thank you. I appreciate your chairing the hearing. I appreciate your sponsorship of this legislation.

I am glad to have this opportunity to testify in support of the California Desert Protection Act.

The California Desert comprises 25 million acres. This vast area contains land of immense beauty, rare and unique plants and animals, opportunities for solitude. There is 700-foot high sand dunes, moist and forested mountains, low desert valleys, palm oases, washes and alluvial fans. With its impressive range of habitats, many view the California desert as second only to the Galapagos Islands in terms of what it can teach us about evolution.

In 1976 Congress enacted the Federal Land Policy and Management Act which established the California Desert Conservation Area and started a process for protecting desert resources. In accordance with this act, the BLM developed a comprehensive management plan for the California desert which was supposed to balance the diverse interests.

However, as witnesses at the subcommittee's July 1987 hearings on the desert bill testified, the original plan was heavily biased toward resource consumptive interests.

Moreover, the plan has been amended and weakened, some of its protection components have not been implemented, and there has been lax enforcement by the BLM.

Unfortunately, too, over the past two years since the subcommittee's hearing, the BLM has continued to pursue its pro-development policies.

Mr. Chairman, threats to the California desert continue. There has been a major proliferation of new vehicle routes. Many of these new routes are into previously unroaded areas, areas the BLM identified in 1980 as roadless and qualifying for wilderness designation.

Additionally, new mining claims have been staked in the California desert, many in proposed wilderness areas.

Urban development also is pushing into the desert. We need to draw clear lines that development can work around while saving some lands and parks and wildernesses.

Congress must act, for without explicit direction, the BLM appears incapable of performing this critical task.

Nowhere is this direction more urgently needed than in the East Mojave national scenic area. The act draws these lines.

Enactment of S. 11 will protect nationally significant desert resources through the designation of three national parks; Death Valley, Joshua Tree and Mojave, and 81 BLM wilderness areas.

I first introduced the California Desert Protection Act in February 1986. Since then I have made some very significant changes in the legislation, and I believe have gone a long way to resolve many of the conflicts initially raised by the bill.

I would just like to take a few moments to outline those changes for the subcommittee.

First, as members of the subcommittee may know, the Department of Defense has expressed concern about the continued availability of desert lands and airspace for military training, testing and research.

Therefore, I amended the act to clarify that the legislation has no impact on the military's existing use of airspace in the desert region.

I also amended the legislation to provide for continued military use of public lands in the desert.

I amended the boundaries of the parks and a number of the proposed wilderness areas to accommodate important non-wilderness uses and to correct map errors.

I have been careful to draw the boundaries to minimize mining conflicts.

A detailed review of BLM, Bureau of Mines, and Geological Survey maps, field reports and geologic studies indicates that most significant reserves lie outside the proposed parks and wilderness areas.

Nonetheless, this year I made changes in a number of wilderness areas to accommodate mining activities.

My staff also consulted with the State of California and based on the information the state provided when I reintroduced the bill this January, no producing mines were located within any other proposed wilderness areas.

The State of California recently advised me that there may be one active mine on the boundary of the proposed Coso Wilderness.

Additionally, it has been brought to my attention that a portion of the Keystone Mine may have been included in the proposed Slate Range Wilderness.

In both cases it was my intention to exclude these mines, and I am prepared to modify the boundaries as necessary to conform to my original intent.

Regarding utilities, after consultation with all the utility companies operating in Southern California, I made boundary modifications in a number of wilderness areas to ensure maximum flexibility to meet future needs of natural gas and electric energy suppliers in our state.

The remaining area of concern is how to handle the new facilities in the East Mojave. I am confident we can work this out, and I am committed to doing so.

Regarding ORV use, I am aware that many people are interested in maintaining vehicular access to their favorite areas of the desert.

In drawing the boundaries of the wilderness areas designated by this bill, I have been careful to excuse roads and popular vehicle routes such as the historic Mojave road and areas receiving the heaviest ORV use.

Let me stress how much is unaffected, how much will still be open.

Unaffected by the legislation and available for vehicular use are 15,000 miles of unmaintained dirt roads, enough to go halfway around the world.

Another 15,000 miles of paved and maintained dirt roads also would remain available. That is enough to go all the way around the world and more.

Also, the legislation does not affect 7,000 miles of vehicle-accessible washes.

In addition, over 400,000 acres of BLM open areas are outside the proposed parks and wilderness areas and remain available exclusively for ORV use.

Finally and additionally, more than 30,000 acres on state and private lands in the desert are available to ORVs. That is a tremendous area where they can go at will.

Nonetheless, I have been reviewing the issue of vehicular access with the maps made available to my office earlier this year by the California Desert Coalition, and I am ready to sit down with Senator Wilson and discuss modifications with him.

The Desert Protection Act is supported by the people of California. A September 1988 survey conducted by the Field Institute found the vast majority of Californians support more parks and wilderness in the desert.

75 percent of those polled said they wanted to see more protection for desert wildlife and the ecology there.

I urge you, therefore, for all these reasons and others to move forward with S. 11 to ensure that these vast natural resources of the California desert are preserved for the greatest number of people and for the greatest good—not just for California, but for the nation as a whole and not just for the immediate gratification of a few, but for the millions in future generations who will follow in our footsteps.

I thank you.

[The prepared statement of Senator Cranston follows:]

STATEMENT BY SENATOR ALAN CRANSTON
BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS, AND FORESTS
IN SUPPORT OF S. 11, THE CALIFORNIA DESERT PROTECTION ACT

October 2, 1989

Mr. Chairman, I'm pleased to have this opportunity to appear before the Senate Energy and Natural Resources Committee Subcommittee on Public Lands this afternoon to testify in support of the California Desert Protection Act, now S. 11, and to urge your prompt approval of the legislation.

As you know, the California Desert comprises 25 million acres. This vast area contains lands of immense beauty, rare and unique plants and animals, opportunities for solitude. There are 700 foot-high sand dunes, moist and forested mountains, low desert valleys, palm oases, washes, and alluvial fans. With its impressive range of habitats, many view the California Desert as second only to the Galapagos Islands in terms of what it can teach us about evolution.

The desert, indeed, is a land of many resources and many uses. And it is large enough to support the varied demands being made upon it -- by campers, hikers, tourists, the military, residents, energy developers, miners, rockhounds, hunters, ranchers, naturalists, scientists, and educators. The desert can support all these diverse interests, but only if the activities are in concert with the ecological and economic realities of the region.

As you know, in 1976 Congress enacted the Federal Land Policy and Management Act which established the California Desert Conservation Area and started a process for protecting desert resources. In accordance with this Act, the BLM developed a comprehensive management plan for the California Desert which was supposed to balance the diverse interests.

However, as witnesses at the Subcommittee's July 1987 hearings on the desert bill testified, the original Plan was heavily biased toward resource consumptive interests. Moreover, the Plan has been amended and weakened; some of its protection components have not been implemented; and there has been lax enforcement by the BLM. In sum, in implementing the California Desert Plan the BLM has failed to protect important desert resources.

And unfortunately, over the past two years since the Subcommitte's hearings, the BLM has continued to pursue its pro-development policies. For example, last February when the California Department of Fish and Game recommended to the State Fish and Game Commission that it list the desert tortoise as a threatened species, the BLM did not support this listing. Rather the BLM asked the Fish and Game Commission not to list the tortoise and to delay its decision for two to four years, on the grounds that BLM needed more time to complete its studies on the desert tortoise and develop its own programs to protect the species. This recommendation for delay was made over the objections of BLM's own wildlife biologist and expert on the desert tortoise who considered state listing essential to maintaining viable healthy tortoise populations and halting the decline.

Now, inspite of the fact that the State has listed the desert tortoise as an endangered species and the U.S. Fish and Wildlife Service has gone forward with a federal emergency listing, the BLM proposes to permit the Barstow-to-Vegas Motorcycle Race and the Dual Sport Poker Run through crucial desert tortoise habitat during Thanksgiving weekend. Both events would cross the East Mojave National Scenic Area and the Poker Run with 300 motorcycle participants would go through the Woods Mountain Wilderness Study Area, which would be designated wilderness under S. 11.

This is not an isolated instance in which the BLM appears to have placed other interests over wildlife protection. Today the Subcommittee will be hearing from the General Accounting Office about its study of BLM wildlife management in the California Desert. According to GAO, "the BLM has frequently allowed the needs of competing interests, such as recreation and commerical use, to take precedence over wildlife interests when conflicts have arisen." The bottom line is that wildlife objectives of the Desert Plan have not been achieved.

Mr. Chairman, while Congress has been debating desert legislation the threats to the California Desert continue. There has been a major proliferation of new vehicle routes. Many of these new routes are into previously unroaded areas, areas the BLM identified in 1980 as roadless and qualifing for wilderness designation. Additionally, new mining claims have been staked in the California desert -- many in proposed wilderness areas. Urban development also is pushing into the desert. The City of Coachella has annexed a portion of a proposed wilderness area and is in the process of approving the building of

8000 homes. In the last three years, the City of Palm Desert has grown 19 percent, Las Vegas 26 percent, Lancaster 35 percent, Victorville 39 percent and Palmdale 95 percent.

We need to draw clear lines that development can work around while saving some lands as parks and wildernesses. Congress must act, for without explicit direction, the BLM appears incapable of performing this critical task. Nowhere is this direction more urgently needed than in the East Mojave National Scenic Area.

Mr. Chairman, the California Desert Protection Act draws those lines. Enactment of S. 11 will protect nationally significant desert resources through the designation of three national parks -- Death Valley, Joshua Tree, and Mojave -- and 81 BLM wilderness areas.

As you know, I first introduced the California Desert Protection Act in February 1986. Following introduction of the bill, I asked for public comment and review. In January 1987 I reintroduced the bill taking into account the many comments I received in 1986. This January I reintroduced the bill again, making additional changes in the legislation based on the testimony presented at the Committee's July 1987 hearings and information subsequently provided to my office.

Thus, the bill before you today reflects the input, comments and suggestions of literally hundreds of people -- State and local governments, desert residents, utilities, mining companies, ranchers, native Americans, vehicle recreationists, the military, and environmentalists.

I have made some very significant changes in the California Desert Protection Act and I believe have gone a long way to resolve many of the conflicts initially raised by the bill. I would just like to take a few minutes to outline those changes for the Subcommittee.

First, I have included new bill language regarding military activities in the California Desert. As the members of the Subcommittee know, the areas proposed for addition to the national park and wilderness systems in this legislation are located in a region which is used extensively by the Department of Defense for training, research and development. These military activities have not impaired the natural and cultural values of the proposed parks and wilderness areas. However, the Department of Defense has expressed concern about the continued availability of these lands and airspace as there is a lack of alternative sites available for these military training, testing, and research activities.

Therefore, I amended the California Desert Protection Act to clarify that the legislation has no impact on the military's existing use of airspace in the California Desert region.

I also amended the legislation to provide for continued military use of public lands in the California Desert. The bill now includes the military withdrawal legislation for China Lake Naval Weapons Center and Chocolate Mountain Aerial Gunnery Range which was approved by the House Interior Committee and the full House in the last Congress, but not acted upon by the Senate.

Additionally I amended the boundaries of the parks and a number of the proposed wilderness areas to accommodate important non-wilderness uses and to correct map errors.

I have been careful to draw our boundaries to minimize mining conflicts. A detailed review of BLM, Bureau of Mines, and Geological Survey maps, field reports, and geologic studies indicates that most significant reserves lie outside the proposed parks and wilderness areas. Moreover, there are no reserves of any of the 14 minerals considered strategic by the Office of Technology Assessment to be found anywhere in the California Desert.

Nonetheless, this year I made changes in the Argus Range, Chuckwalla Mountains, Dead Mountains, Inyo Mountains, Fish Creek, Jacumba, Malpais Mesa, Resting Spring, Slate Range, and Joshua Tree Park additions to accommodate mining activities.

My staff also consulted with the State of California and based on the information the State provided when I reintroduced the bill this January, no producing mines were located within any of the proposed wilderness areas. The State of California recently advised me that there may be one active mine on the boundary of the proposed Coso Wilderness. Additionally, it has been brought to my attention that portions of the Keystone Mine may have been included in the proposed Slate Range Wilderness. In both cases, it was my intention to exclude these mines and I am prepared to modify the boundaries as necessary to conform to my original intention.

Regarding utilities, as originally introduced the California Desert Protection Act protected all existing utility facilities in the California desert and left open opportunities for future development. However, after consultation with all the utility companies operating in Southern California, I have made boundary modifications in a number of wilderness areas to ensure maximum flexibility to meet future needs for natural gas and electric energy supplies in our state. The remaining area of concern is how to handle new facilities in the East Mojave. I am confident we can work this out and I am committed to doing so.

Additionally, I have included new language to ensure that Native Americans will continue to have access to the park and wilderness areas for continued traditional cultural and religious use.

Regarding ORV use, I am aware that many people are interested in maintaining vehicular access to their favorite areas of the desert. In drawing the boundaries of the wilderness areas designated by this bill, I've been careful to exclude roads and popular vehicle routes, such as the historic Mojave Road, and areas receiving the heaviest ORV use. Unaffected by the legislation and available for vehicular use are 15,000 miles of unmaintained dirt routes -- enough to go half way around the world. Another 15,000 miles of paved and maintained dirt roads also would remain open. Also the legislation does not affect 7,000 miles of vehicle accessible washes. In addition, over 400,000 acres of BLM open areas are outside the proposed parks and wilderness areas and remain available exclusively for ORV use. Additionally more than 30,000 acres on state and private lands in the desert are available to ORVers.

Nonetheless, I have been reviewing the issue of vehicular access with the maps made available to my office earlier this year by the California Desert Coalition, and I am ready to sit down with Senator Wilson and discuss modifications with him.

Finally, I understand the need to address the issue of federal reserved water rights in this legislation. I fully intend to do so. Based on the information provided my office by the BLM and the State of California, there are very few water conflicts in the California Desert. So I am confident water rights language will not be an obstacle to moving forward with S. 11.

Mr. Chairman, support for this legislation has grown dramatically since its initial introduction. There are now 118 national and local conservation organizations supporting the bill. Some 1100 scientists and other academicians nationwide have endorsed the California Desert Protection Act. This afternoon the Subcommittee will be hearing from three of these individuals. Support from local government has increased, too. Santa Barbara, Sacramento, San Francisco, Santa Cruz, Santa Clara, Marin, Alameda, Contra Costa, and San Mateo Counties and the Cities of San Francisco, Riverside, Rancho Mirage, Escondido, Santa Monica, Del Mar, Palm Desert, West Hollywood, Fresno, Sacramento and Redlands favor the bill.

A September 1988 survey conducted by the Field Institute found that the vast majority of Californians support more parks and wilderness in the California Desert. Seventy-five percent of those polled said they want to see more protection for desert wildlife and ecology.

Starker Leopold writes in Wild California that "California's rich desert heritage is one of unequaled natural beauty. The wildlife and wildlands of the desert are treasures and resources to be cherished and protected for all time."

Mr. Chairman, I urge you to move forward with S. 11 to ensure that these vast natural resources of the California desert are preserved for the greatest number of people and the greatest good, not just for California, but the nation as a whole; and not just for the immediate gratification of a few, but for the millions in future generations who follow in our footsteps.

Thank you.

Senator WIRTH. Senator Bumpers?

Senator BUMPERS. I have no questions.

Senator WIRTH. Senator Cranston, we greatly appreciate you being here, and we will make sure that your record and any other supporting material is included in full in the record.

I know this will be a long process of discussion between us all. Thank you very much.

Senator CRANSTON. Thank you a great deal.

Senator WIRTH. Senator Wilson.

We are now joined by the distinguished junior Senator of the State of California, Senator Wilson. Welcome.

STATEMENT OF HON. PETE WILSON, U.S. SENATOR FROM CALIFORNIA

Senator WILSON. Thank you very much, Mr. Chairman.

Mr. Chairman and Senator Bumpers, I am grateful to appear here today to discuss S. 11.

I, too, want a desert bill, the right kind of desert bill. I, too, want to protect the desert, but I want to protect it for people as well as for the desert itself.

I believe that it is possible to preserve the beauty and the wonder of the desert ecosystem, but at the same time allow the people of California and the nation to see and to appreciate and enjoy that beauty.

Mr. Chairman, you will shortly hear testimony from our distinguished House colleagues who represent the half million residents of the desert lands embraced by S. 11.

They, too, propose a bill, an alternative desert bill to S. 11 that would put an additional two million acres into the national inventory of wilderness.

Mr. Chairman, two million acres is a substantial addition. It is, in fact, more than we added in the much celebrated California Wilderness Act of 1984 when Senator Cranston and I worked together with then-Chairman Seiberling in the House to put in the wilderness, the precious acreage of Forest Service lands.

But, that very substantial addition of two million acres is but a quarter of the total proposed for wilderness status by S. 11.

You will hear from these House members their objections or, more accurately, the objections of their constituents who live in the desert to the much more ambitious, much broader reach of S. 11.

In fact, you will hear from some of the constituents themselves.

Mr. Chairman, because I represent these half million residents of the California desert as do their House representatives, I am sensitive to their wants and needs, just as are my colleagues who represent them in the House.

I am also sensitive to the wants and needs of an even greater number of Californians who make repeated visits annually, traveling several hours each way in search of wholesome outdoor recreation and the unique ambiance and beauty of the great California desert.

The problem with S. 11 as it is introduced is it seeks to protect the desert from present and future Californians more than it seems to protect it for them and, in doing so, it effectively locks them out of vast areas.

Mr. Chairman, people living under the increasing pressures of urbanization need wholesome outdoor recreation and if they are deprived of it, people too can become a threatened if not an endangered species.

Mr. Chairman, a way must be found to reconcile the need for desert protection with the need to provide desert access for the hundreds of thousands of Californians who enjoy climbing, camping, rock collecting and all the other legitimate recreational forms for enjoyment of the desert.

The elderly, the disabled, very young children, in short, California families, must not be locked out of the desert and then cut off from their choice of special recreation.

As the population pressures of California increase inexorably, the pleasures of the desert and its special solitude must not be reserved solely to survivalists.

A way must be found to permit all Californians to enjoy and to appreciate the unique ecosystem while at the same time assuring that negligent or willful misuse does not abuse or destroy it.

It is an unfortunate truth that there will always be some irresponsible people, whether among off road vehicle users, hunters or campers, just as there are in any other group.

Even in the high Sierras some backpackers still collect firewood or wash in streams.

But the vast majority of individuals, the families and the groups who legitimately want to be assured access to the desert and to the recreation it provides, also want desperately to protect the fragile desert ecosystem.

They go to the desert because it is beautiful. Perhaps more than anyone else, they want to prevent the despoilment of that environment.

They care just as deeply as do you and I that this fragile ecology be saved for our children and our grandchildren.

The desert is a special place, and it holds the imagination of Californians and of visitors from all across the nation.

There is a special solitude, a special landscape, many unique qualities in the desert that do demand protection.

Both Joshua Tree and Death Valley National Monuments deserve national park status and probably some appropriate boundary adjustments.

These lands are national treasures, and they appropriate places in the national inventory alongside America's crown jewels, Sequoia, Yellowstone, Grand Canyon, and Yosemite.

Mr. Chairman, what S. 11 proposes is the disposition of 7.9 million acres.

As proposed by my distinguished colleague, S. 11 would designate that entire land mass as either national park or wilderness forever.

That designation would be the equivalent of closing off the states of Connecticut and New Jersey to vehicular traffic.

Some of the areas proposed in S. 11 as wilderness are as large as 250,000 acres, and the designation in the law of an area as wilderness, as you know all too well, means that no wheeled vehicle, not a wheelchair, not a bicycle, not a unicycle, may provide access.

This approach, this locking up of vast acreage, simply goes too far.

I understand the temptation of a quick and a simple solution to resolve what are perceived as threats to the preservation of the desert.

And with the proper treatment of so vast an area and the resolution of competing claims of the different groups who have interest in it and particularly those seeking recreation and therefore seeking access are not so simple.

It is not right to lock millions of Californians, especially those in Southern California, out of this magnificent and much needed outdoor recreation area so long as they use it responsibly.

We must reconcile the need to protect the desert with the need to provide access to the hundreds of thousands of Californians who require it.

Mr. Chairman, the need for access continues to grow. The growth of the suburban areas near the desert which border the California desert conservation area will grow at a projected rate of 20 to 35 percent in the next decade alone.

These neighbors and communities look at the desert as southern California's backyard.

This recreational use is certain to intensify because of the rapidly growing population of southern California.

Vehicular access is not only required for recreational use, but also for the nearly 300 artificial water resources called water guzzlers which are used for the introduction and maintenance of bighorn sheep sited within the proposed boundaries of S. 11.

These water resources require periodic inspection and maintenance, usually involving vehicles or aircraft to travel to and from the site.

Designating lands as national parks or wilderness would substantially impair the ability of the California Department of Fish and Game to maintain the guzzlers and would prevent Fish and Game from installing new ones.

Certainly we do not wish to go that far because clearly the increase of the rare bighorn sheep acquired as a result of that substantial guzzler program has been one of the great success stories in turning around an endangered species.

Unfortunately, the desert tortoise has not fared nearly as well, and I am concerned that the precipitous decline of the desert tortoise be arrested.

I have called on the Secretary of the Interior to place the desert tortoise on the endangered species list on an emergency basis in the desert tortoise natural area in the western Mojave Desert.

The decline in one study area was 58 percent, but most of the evidence indicates that that has to do with predators, specifically ravens and also a mysterious respiratory disease.

I am confident that a way can be found successfully to reconcile and manage different land uses for the desert in a way that will provide effective protection for the tortoise.

But, Mr. Chairman, it is not only animals which need and use the California desert. People live there, too—again, I repeat, over half a million in the California desert conservation area.

Their rural way of life revolves around the old west enterprises of cattle running, grazing and mining as well as tourism.

In addition, there are military installations. I will not dwell upon those, although they are important. Some have a peculiar, virtually unique importance to our national security and aerospace efforts—Edwards Air Force Base, the China Lake facility, the Chocolate Mountain Area Gunnery Range. But, I have heard Senator Cranston address those areas, and apparently they do not, at least in his contemplation, suffer because of S. 11.

There are strategic minerals in the desert including some rare earths that can play an important role in replacing toxic asbestos.

There are new high efficiency minerals that may provide America with a means to lessen our dependency on fossil fuels.

Mr. Chairman, S. 11 proposes to save the desert from the people of California. I propose that we must save the desert for the people of California, all of the people, all of the different people who make different competing claims upon it.

I do not think that—while it is not simple, I do not think that is impossible.

And let me say that I know that Senator Cranston has sought diligently to do so.

Mr. Chairman, let me finally touch on the GAO assessment which my colleague has required be made of the BLM management of the desert.

I am not here to defend the Bureau. On the other hand, I think it only fair to point out that really the most telling criticism of the BLM has been GAO's observation that "BLM funding shortfalls are so severe that even highly significant tasks cannot be performed."

The simple fact is that the CDCA plan has never been adequately funded. Instead of the $130 million called for by the plan for the years 1982 through 1998, only $53 million has actually been expended.

Until most recently the BLM had fewer than 25 rangers to supervise an area roughly the combined size of the states of New Hampshire and Vermont. This is plainly woefully inadequate.

Mr. Chairman, it is doubtful that the paper designation of wilderness in the law itself will any better patrol these precious lands or safeguard them against those who would violate them without these additional resources being put into effect.

The question posed before this committee is not whether one is for the desert or against it. Californians of every view support the concept of preserving the desert.

The issue, rather, is how to even out the conflicting views and in particular in my view the chief conflict is that between access and the wilderness on a comprehensive scale proposed by S. 11.

I believe the protection of the desert environment and the enjoyment of desert recreation are not mutually exclusive goals.

Mr. Chairman, we must end the stalemate by the kind of a plan that will accommodate adequate recreation for the growing number of people who require it.

A paper fiat, I repeat, will not give us any assurance against those who have simply chosen to violate, if not the law, the rules of an ethical care and concern about the public's property.

We must make the kind of careful judgment that will, in fact, protect the rights of those who need outdoor recreation, that will, in fact, preserve the splendor of the desert, but let me just say again that we must do so by more than simply declaring a vast area a wilderness. That will not do it.

And, in fact, I think one of the things which the committee needs to look at, if I may presume to make that suggestion—not being a member, but knowing of your intense interest—is to look at some means of providing the funding for the necessary enforcement that will prevent some of the travesties that have occurred with respect to some of the ancient graphics, the paleographs which the first inhabitants of the desert have left as a legacy for us.

Mr. Chairman, I appreciate your indulgence for a lengthy statement, but this is a matter of importance.

I think that somewhere between what Senator Cranston proposes and what the BLM has proposed is the answer, but I do not think we should rush to judgment.

You will hear, as I have indicated, from the Congressmen who represent the area who feel intensely about it, as you would expect.

Thanks very much.

[The prepared statement of Senator Wilson follows:]

TESTIMONY BY

THE HONORABLE PETE WILSON
UNITED STATES SENATOR (R-CA)

BEFORE THE

SENATE ENERGY AND NATURAL RESOURCES
SUBCOMMITTEE ON PUBLIC LANDS,
NATIONAL PARKS AND FORESTS

ON S. 11
OCTOBER 2, 1989 AT 2:00PM
DIRKSEN 370

MR. CHAIRMAN:

THANK YOU FOR THE OPPORTUNITY TO APPEAR HERE TODAY TO DISCUSS S. 11. I, TOO, WANT A DESERT BILL, BUT THE RIGHT KIND OF DESERT BILL. I, TOO, WANT TO PROTECT THE DESERT, BUT I WANT TO PROTECT IT FOR PEOPLE AS WELL AS FOR ITSELF. I BELIEVE IT IS POSSIBLE TO PRESERVE THE BEAUTY AND THE WONDER OF THE DESERT ECOSYSTEM, AND AT THE SAME TIME ALLOW THE PEOPLE OF CALIFORNIA TO SEE, APPRECIATE AND ENJOY THAT BEAUTY.

MR. CHAIRMAN, YOU WILL SHORTLY HEAR TESTIMONY FROM OUR DISTINGUISHED HOUSE COLLEAGUES WHO REPRESENT THE HALF MILLION RESIDENTS OF THE DESERT LANDS EMBRACED BY S. 11. THEY TOO PROPOSE AN ALTERNATIVE DESERT BILL TO S. 11 THAT WOULD PUT AN ADDITIONAL TWO MILLION ACRES INTO THE NATIONAL INVENTORY OF WILDERNESS. TWO MILLION ACRES IS A SUBSTANTIAL ADDITION, MR. CHAIRMAN. IT IS IN FACT MORE THAN WE ADDED IN THE MUCH CELEBRATED CALIFORNIA WILDERNESS ACT OF 1984 THAT PLACED IN WILDERNESS PRECIOUS ACREAGE OF FOREST SERVICE LANDS. BUT IT IS ONLY A QUARTER OF THE TOTAL PROPOSED FOR WILDERNESS STATUS BY S. 11.

YOU WILL HEAR FROM THESE HOUSE MEMBERS THEIR OBJECTIONS -- OR, MORE ACCURATELY, THE OBJECTIONS OF THEIR CONSTITUENTS WHO

LIVE IN THE DESERT -- TO THE MUCH MORE AMBITIOUS, MUCH BROADER REACH OF S. 11.

MR. CHAIRMAN, BECAUSE I REPRESENT THESE HALF-MILLION RESIDENTS OF THE CALIFORNIA DESERT, I AM SENSITIVE TO THEIR WANTS AND NEEDS, AS ARE MY COLLEAGUES WHO REPRESENT THEM IN THE HOUSE OF REPRESENTATIVES.

I AM ALSO SENSITIVE TO THE WANTS AND NEEDS OF AN EVEN GREATER NUMBER OF CALIFORNIANS WHO MAKE REPEATED VISITS ANNUALLY, TRAVELING SEVERAL HOURS EACH WAY IN SEARCH OF WHOLESOME OUTDOOR RECREATION AND THE UNIQUE AMBIENCE AND BEAUTY OF THE GREAT CALIFORNIA DESERT. BUT THE PROBLEM WITH S. 11, AS INTRODUCED, IS THAT IT SEEKS TO PROTECT THE DESERT FROM PRESENT AND FUTURE CALIFORNIANS RATHER THAN FOR THEM, AND -- TO DO SO -- IT EFFECTIVELY LOCKS THEM OUT.

MR. CHAIRMAN, PEOPLE LIVING UNDER THE INCREASING PRESSURES OF URBANIZATION NEED WHOLESOME OUTDOOR RECREATION. AND IF THEY ARE DEPRIVED OF IT, PEOPLE CAN BECOME A THREATENED, IF NOT AN ENDANGERED, SPECIES.

MR. CHAIRMAN, A WAY MUST BE FOUND TO RECONCILE THE NEED FOR DESERT PROTECTION WITH THE NEED TO PROVIDE DESERT ACCESS FOR THE HUNDREDS OF THOUSANDS OF CALIFORNIANS WHO ENJOY

CLIMBING, CAMPING, ROCK COLLECTING, AND OTHER LEGITIMATE RECREATION. THE ELDERLY, THE DISABLED, VERY YOUNG CHILDREN AND CALIFORNIA FAMILIES MUST NOT BE LOCKED OUT OF THE DESERT AND CUT OFF FROM THEIR CHOICE OF SPECIAL RECREATION. AS THE POPULATION PRESSURES OF CALIFORNIA INCREASE INEXORABLY, THE PLEASURES OF THE DESERT AND ITS SPECIAL SOLITUDE MUST NOT BE RESERVED SOLELY TO SURVIVALISTS. A WAY MUST BE FOUND TO PERMIT ALL CALIFORNIANS TO ENJOY AND APPRECIATE THE UNIQUE ECOSYSTEM, WHILE AT THE SAME TIME ENSURING THAT NEGLIGENT OR WILLFUL MISUSE DOES NOT ABUSE OR DESTROY IT.

IT IS AN UNFORTUNATE TRUTH THAT THERE WILL ALWAYS BE SOME IRRESPONSIBLE PEOPLE AMONG OFF ROAD VEHICLE USERS, HUNTERS AND CAMPERS, JUST AS AMONG ANY OTHER GROUP. EVEN IN THE HIGH SIERRA, SOME BACKPACKERS STILL COLLECT FIREWOOD OR WASH IN STREAMS. BUT I FIND THAT THE VAST MAJORITY OF INDIVIDUALS, FAMILIES AND GROUPS WHO LEGITIMATELY WANT TO BE ASSURED ACCESS TO THE DESERT AND THE RECREATION IT PROVIDES, ALSO WANT DESPERATELY TO PROTECT THE FRAGILE DESERT ECOSYSTEM. THEY GO TO THE DESERT BECAUSE IT IS BEAUTIFUL. PERHAPS MORE THAN ANYONE ELSE THEY WANT TO PREVENT THE DESPOILMENT OF THE ENVIRONMENT. THEY CARE JUST AS DEEPLY AS YOU AND I THAT THIS FRAGILE ECOLOGY IS SAVED FOR OUR CHILDREN AND GRANDCHILDREN.

THE DESERT IS A SPECIAL PLACE AND IT HOLDS THE IMAGINATION OF CALIFORNIANS AND OF THE NATION, TOO. AND THERE IS A SPECIAL SOLITUDE AND LANDSCAPE AND MANY NATURAL QUALITIES IN THE DESERT THAT DEMAND PROTECTION. BOTH JOSHUA TREE AND DEATH VALLEY NATIONAL MONUMENTS DESERVE NATIONAL PARK STATUS AND APPROPRIATE BOUNDARY ADJUSTMENTS. THESE LANDS ARE NATIONAL TREASURES AND THEIR APPROPRIATE PLACE IS IN THE NATIONAL INVENTORY ALONGSIDE AMERICA'S CROWN JEWELS OF SEQUOIA, YELLOWSTONE, GRAND CANYON, AND YOSEMITE.

MR. CHAIRMAN, WHAT S. 11 PROPOSES IS THE DISPOSITION OF 7.9 MILLION ACRES. AS PROPOSED BY MY DISTINGUISHED COLLEAGUE, S. 11 WOULD DESIGNATE THAT ENTIRE LAND MASS AS EITHER NATIONAL PARK OR WILDERNESS FOREVER. THAT DESIGNATION WOULD BE THE EQUIVALENT OF CLOSING OFF THE STATES OF CONNECTICUT AND NEW JERSEY TO VEHICULAR TRAFFIC. SOME OF THE AREAS PROPOSED IN S. 11 AS WILDERNESS ARE AS LARGE AS 250,000 ACRES. THE DESIGNATION IN THE LAW OF AN AREA AS WILDERNESS MEANS THAT NO WHEELED VEHICLE -- NOT A WHEELCHAIR, NOT EVEN A BICYCLE -- MAY GAIN ACCESS.

THIS LOCK-UP APPROACH SIMPLY GOES TOO FAR, MR. CHAIRMAN. I UNDERSTAND THE TEMPTATION OF A QUICK AND SIMPLE SOLUTION TO RESOLVE THE DESERT ISSUE. BUT THE PROPER TREATMENT OF SO VAST AN AREA, AND THE RESOLUTION OF COMPETING CLAIMS OF THE

DIFFERENT GROUPS WHO HAVE INTERESTS IN IT, ARE NOT SO SIMPLE. IT IS NOT RIGHT TO LOCK MILLIONS OF SOUTHERN CALIFORNIANS OUT OF THIS MAGNIFICENT AND MUCH NEEDED OUTDOOR RECREATION AREA, SO LONG AS THEY USE IT RESPONSIBLY.

WE MUST RECONCILE THE NEED TO PROTECT THE DESERT WITH THE NEED TO PROVIDE ACCESS TO THE HUNDREDS OF THOUSANDS OF CALIFORNIANS WHO REQUIRE IT. AND MR. CHAIRMAN, THE NEED FOR ACCESS CONTINUES TO GROW. THE GROWTH OF THE SUBURBAN AREAS NEAR THE DESERT WHICH BORDER THE CALIFORNIA DESERT CONSERVATION AREA WILL GROW AT A PROJECTED RATE OF 20 TO 35 PERCENT IN THE NEXT TEN YEARS. THESE NEIGHBORHOODS AND COMMUNITIES LOOK AT THE DESERT AS SOUTHERN CALIFORNIA'S BACKYARD. THIS RECREATIONAL USE IS CERTAIN TO INTENSIFY BECAUSE OF THE RAPIDLY GROWING POPULATION OF SOUTHERN CALIFORNIA.

VEHICULAR ACCESS IS NOT ONLY REQUIRED FOR RECREATIONAL USE, BUT THERE ARE ALSO NEARLY 300 ARTIFICIAL WATER RESOURCES, CALLED "WATER GUZZLERS," WHICH ARE USED FOR THE INTRODUCTION AND MAINTENANCE OF BIGHORN SHEEP, SITED WITHIN THE PROPOSED BOUNDARIES OF S. 11. THESE WATER RESOURCES REQUIRE PERIODIC INSPECTION AND MAINTENANCE, USUALLY INVOLVING VEHICLE OR AIRCRAFT FOR TRAVEL TO AND FROM THE SITES. DESIGNATING LANDS AS "NATIONAL PARK" OR "WILDERNESS" WOULD SUBSTANTIALLY IMPAIR THE ABILITY OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME TO

MAINTAIN THE GUZZLERS AND PREVENT THE DEPARTMENT FROM INSTALLING NEW ONES. WE SHOULD REMEMBER THAT THE INCREASE OF THE RARE BIGHORN SHEEP HAS BEEN ONE OF THE SUCCESS STORIES IN THE ENDANGERED SPECIES PROGRAM.

UNFORTUNATELY, THE DESERT TORTOISE HAS NOT FARED AS WELL. MR. CHAIRMAN, I AM VERY CONCERNED ABOUT THE PRECIPITOUS DECLINE OF THE DESERT TORTOISE AND I HAVE CALLED ON THE SECRETARY OF THE INTERIOR TO PLACE THE DESERT TORTOISE ON THE ENDANGERED SPECIES LIST ON AN EMERGENCY BASIS. (IN THE DESERT TORTOISE'SNATURAL AREA IN THE WESTERN MOJAVE DESERT THE DECLINE IN ONE STUDY AREA WAS 58%). BUT I AM CONFIDENT THAT A WAY CAN BE FOUND SUCCESSFULLY TO RECONCILE DIFFERENT LAND USES FOR THE DESERT THAT WILL RESULT IN EFFECTIVE PROTECTION FOR THE TORTOISE.

MR. CHAIRMAN, IT IS NOT ONLY ANIMALS WHICH NEED AND USE THE CALIFORNIA DESERT. PEOPLE LIVE THERE, TOO. OVER 500,000 PEOPLE LIVE IN THE CALIFORNIA DESERT CONSERVATION AREA. THEIR RURAL WAY OF LIFE REVOLVED AROUND THE OLD WEST ENTERPRISES OF CATTLE GRAZING AND MINING, AS WELL AS TOURISM.

IN ADDITION, THERE ARE FIVE MAJOR MILITARY INSTALLATIONS IN THE CALIFORNIA DESERT CONSERVATION AREA, INCLUDING THOSE HAVING A TRULY UNIQUE IMPORTANCE TO OUR NATIONAL SECURITY AND

AEROSPACE EFFORTS: EDWARDS AIR FORCE BASE, NAVAL AIR TEST FACILITY AT CHINA LAKE, AND THE CHOCOLATE MOUNTAIN AERIAL GUNNERY RANGE.

THERE ARE OVER FIFTEEN STRATEGIC MINERALS IN THE DESERT, INCLUDING 97 PERCENT OF THIS COUNTRY'S DOMESTIC RARE EARTHS -- MINERALS THAT WILL PLAY AN IMPORTANT ROLE IN REPLACING TOXIC ASBESTOS AND NEW HIGH EFFICIENCY MINERALS THAT MAY PROVIDE AMERICA WITH THE MEANS TO LESSEN DEPENDENCY UPON FOSSIL FUELS. MR. CHAIRMAN, S. 11 PROPOSES TO SAVE THE DESERT **FROM** THE PEOPLE OF CALIFORNIA. I PROPOSE TO SAVE THE DESERT **FOR** THE PEOPLE OF CALIFORNIA.

MR. CHAIRMAN, MUCH HAS BEEN MADE OF THE GAO ASSESSMENT OF THE BLM MANAGEMENT OF THE DESERT. I AM NOT HERE TO DEFEND THE BUREAU. BUT THE MOST TELLING CRITICISM OF THE BLM IS THE GAO OBSERVATION THAT "BLM FUNDING SHORTFALLS ARE SO SEVERE THAT EVEN HIGHLY SIGNIFICANT TASKS CANNOT BE PERFORMED." THE SIMPLE FACT IS THAT THE CDCA PLAN HAS NEVER BEEN ADEQUATELY FUNDED. INSTEAD OF THE $130 MILLION CALLED FOR BY THE PLAN FOR THE YEARS 1982 TO 1988, ONLY $53 MILLION WAS EXPENDED. UNTIL MOST RECENTLY, THE BLM HAS HAD FEWER THAN 25 RANGERS TO SUPERVISE AN AREA ROUGHLY THE COMBINED SIZE OF THE STATES OF NEW HAMPSHIRE AND VERMONT. THIS IS WOEFULLY INADEQUATE. BUT MR. CHAIRMAN, IT IS DOUBTFUL THAT THE PAPER DESIGNATION OF "WILDERNESS" BY

ITSELF WILL ANY BETTER PATROL THESE PRECIOUS LANDS WITHOUT ADDITIONAL RESOURCES. A FIAT DECLARING A STATUS ON PAPER IS NOT SELF-ENFORCING AND WILL NOT BY ITSELF ACHIEVE THAT STATUS. VIOLATORS OF THE DESERT WILL VIOLATE THE LAW IF NOT PREVENTED.

THE QUESTION POSED BEFORE THIS COMMITTEE IS NOT WHETHER ONE IS FOR THE DESERT OR AGAINST IT. CALIFORNIANS OF EVERY VIEW SUPPORT THE CONCEPT OF PRESERVING THE DESERT. THE ISSUE, RATHER, IS HOW TO EVEN OUT THOSE CONFLICTING VIEWS. I BELIEVE THE PROTECTION OF THE DESERT ENVIRONMENT AND THE ENJOYMENT OF DESERT RECREATION ARE NOT MUTUALLY EXCLUSIVE GOALS. MR. CHAIRMAN, WE MUST END THE STALEMATE BY TRUE ACCOMMODATION NOT BY A PAPER FIAT LIKE S. 11, BUT BY A FAIR AND REALISTIC APPROACH THAT TAKES INTO ACCOUNT THE MANY EQUALLY LEGITIMATE INTERESTS THAT ARE INVOLVED HERE. THE TIME HAS COME TO MATCH RESOURCES WITH OUR COMMITMENT TO THE DESERT, TO ITS NATURAL FORMS, AND TO ITS VARIOUS HUMAN USES AND VISITORS. I URGE YOU NOT TO MOVE PRECIPITOUSLY, FOR OUR POSTERITY DESERVES THE BEST EFFORTS OF YOUR CAREFUL DELIBERATION.

I THANK THE CHAIRMAN.

Senator Bumpers [presiding]. Senator Wilson, do you not approve the BLM proposal either?

Senator Wilson. I approve the BLM proposal. I think that we are going to get a desert bill, and the question in my judgment is what the elements are.

As I have indicated, I think that park status for Joshua Tree, and park status for Death Valley are highly desirable.

I think that the acreage which the BLM has recommended for inclusion as wilderness is a desirable addition to that national inventory. But what we are talking about in the legislation before the committee is something far more ambitious than that.

Senator Bumpers. Do you object to East Mojave being made a national park?

Senator Wilson. My colleague has asked me to reserve judgment on that and said that he wants to work with me on that, and I would be delighted to do that. We have worked effectively together before, and I would be delighted to entertain that.

I think what you have in the East Mojave, though, is that "Old West" lifestyle that I described. You have got people who have been running cattle there in the same family for over a century. You have got a very small, but to the people involved, important mining operation. It is an area that for better or for worse—and I think it is academic to argue the point—has for many, many years been traversed by what the people who do traverse it call "ways." They are trails. The outdoor recreationalists, in particular, are particularly concerned about the continued availability to them of those ways.

Senator Bumpers. Normally in our wilderness bills—and this committee, I guess, handles virtually all of them—we do not preclude grazing. I presume S. 11 does not preclude grazing in any of the wilderness areas?

Senator Cranston. Not in the wilderness areas.

Senator Bumpers. The people who run cattle in the area would not be jeopardized under S. 11. But, Senator Wilson, it is especially difficult for this committee when a Senator from a specific State wants a wilderness bill and his colleague does not and vice versa. We have always tried to be very accommodating to both Senators where wilderness is concerned. We would like for them to agree on something.

We have on occasion reported out wilderness bills that were still in controversy and just let them fight it out on the floor. But, it would be helpful to this committee if you could give us—not necessarily ask you to introduce a bill, but if you could give us a definitive list of either objections to S. 11, or what you would propose as an alternative. That would give this committee the ability to work towards some kind of a compromise between your position and that of Senator Cranston. Would that be possible for you?

Senator Wilson. Mr. Chairman, Senator Cranston and I and more accurately, I guess, our staffs attempted to do that last year and worked, I think, diligently, worked hard, worked in good faith.

The essential problem, I think, is one of the conflict between the kind of access that I have laid such stress upon this afternoon and the legal definition of wilderness as being off limits to access by wheeled vehicles of any kind or by aircraft.

The problem in this case, obviously, is not aircraft. It is wheeled vehicles. It is a problem that I think is in some obvious contrast to the earlier effort where he and I, I think, collaborated very effectively in trying to resolve as we did. We broke the impasse of many years as related to Forest Service land, timber land.

The land that we are talking about here is accessible really to the vast majority—I would say 99-plus percent—of the people who travel to it. It is accessible only by wheeled vehicle, and many months of the year it is clearly inaccessible even to the able bodied. You cannot backpack into it. That is why I made the reference to survivalists.

So, what we are faced with here is necessity to, I think, make certain that a considerable portion of this vast acreage remains available to people who do want to camp, who do come to the campsite in the only way they really can.

And I lay emphasis upon families because they typically are the campers. You have some purely adult recreationalists, but you have a lot of families, and they do include the elderly, they do include young children, and they do include disabled people.

So, I think really what we need to do is—I heard Senator Cranston say he was working with the Desert Coalition. These are the people who are the users and for the most part the recreationalists. They are the ones who really are, I think, proposing or, excuse me, they are the ones who are demanding that there be an adequate portion of the desert reserved.

I do not know what contact they have had in this session so far, and I would be happy to learn of that from them and from him and to work with both groups to assure that there is adequate access for those recreationalists. I think that is the best response I can make to your question.

Senator **Bumpers**. Unless we can have some comprehensive definitive alternative, of course, the committee would have no choice except to use Senator Cranston's S. 11 as the vehicle for marking up. It is not that we would not alter it, and that we would not take your views into consideration, but if we have your own matrix before us, it would be helpful to us.

Senator **Wilson**. Mr. Chairman, I may introduce a measure of my own, as I did when we worked on the other wilderness area.

As I pointed out and as you will learn from the panel from whom you will hear, consisting of the House Members who represent the desert area, they are going to introduce a bill. And, even though it has not been yet formally introduced in this House, that also, I would suggest, is a matrix.

Senator **Bumpers**. We may submit additional questions in writing to both you and Senator Cranston. We have a total of 21 witnesses, and I made a quick calculation as to how soon after midnight we will get out of here at the rate we are going.

Senator **Wilson**. I am not eager to detain you further. You have been generous already.

Senator **Bumpers**. Thank you very much.

Congressman Levine has asked for permission to testify next. Congressman Lewis and Congressman Thomas, I would like to ask your permission. If you have objection to that, I will honor the objections. Congressman Levine says he has a meeting with President Mubarak, which sounds pretty important to me.

STATEMENT OF HON. MEL LEVINE, U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. LEVINE. Thank you, Mr. Chairman. I thank my colleagues and I will be brief.

Senator BUMPERS. They all say that.

Mr. LEVINE. You have heard us on the House side say that, but we have a five-minute rule over there.

Mr. Chairman, I am very pleased that you are holding this hearing today, and I appreciate this opportunity to testify and appreciate your courtesy and that of my colleagues.

I want to briefly touch on two points today. Senator Cranston has excellently outlined the thrust of where we both are with regard to this legislation, so I would like to just talk first about briefly the spectacular quality of the lands we seek to protect and, secondly, to emphasize our continued willingness to address any legitimate conflicts that are brought to our attention.

First, Mr. Chairman, this committee and Congress as a whole has a long and proud history of protecting one of our nation's greatest assets, our priceless natural resources. The California desert clearly is a key part of this heritage, and I am thus very proud to be the House sponsor of the California Desert Protection Act.

As one of the first BLM wilderness acts by virtue of its magnitude alone, the desert bill is an historic measure. Next to consideration of the Alaskan lands, it will be one of the largest protection measures ever considered, but it is not magnitude alone that we seek to protect. Rather, it is some of America's most spectacular out of doors.

One of the bill's most significant contributions will be designation of the Mojave National Park, on the second national park to be designated in nearly a decade. This record is unfortunate considering that the American people have had a longstanding love affair with their national parks which represent family recreation, a love for the great outdoors, and a perpetual legacy for our children. And the Mojave, Mr. Chairman, would be a crown jewel among the nation's gems.

In the past the staff of both the BLM and the National Park Service have found the entire area readily qualified as a worthy unit of the park system. Just to randomly tick off a few of the things you will find in a visit to the Mojave, 16 mountain ranges, the densest Joshua tree forest in the world, the endangered bighorn sheep and desert tortoise, extensive cave systems, historic sites dating back to the 1800s and rare fossil remains including dinosaur tracks. These outstanding assets call out for park designation.

But today, Mr. Chairman, we have a limited sort of one-time offer. We can act now to protect all the park qualities of this land through park designation, or we can leave it to be slowly destroyed by man's thirst for development and an unfortunate level of mismanagement which may have something to do with resources, but which also has something to do with mandate.

As a case in point, the BLM, as we speak, processing an application for a motorcycle even, which would cut right through what is supposed to be a federally protected wilderness study area and critical habitat for the recently listed desert tortoise.

Congress must not let this opportunity slip away. The Mojave should become the newest member of our National Park System.

I would like to make one additional point about the Mojave. During the House hearings concern was raised about historic mining operations, several power corridors, and a small private development, all of which are located in the Mojave.

Unfortunately, I must say that the same developments are already found in existing national parks in this country, and I suspect that that is why the original agency staff did not find that such projects rendered the Mojave unsuitable as a park.

On the 25th anniversary of the Wilderness Act, this bill would also designate 81 wilderness units that harbor outstanding wilderness values, including unique and endangered ecology and incredible opportunities for solitude, unspoiled out of doors. These areas have been documented and field checked for nearly a decade. Their designation would be a tribute to the members of Congress who created the Wilderness Act two and a half decades ago.

And finally, Mr. Chairman, the bill makes important additions to the Death Valley and Joshua Tree monuments which absorb critical habitat which in many cases the BLM itself will have recommended—has recommended as wilderness.

The second point I wish to emphasize today is that both Senator Cranston and I are committed and stand ready to address any legitimate conflicts that are brought to our attention. In fact, in the House hearing they called upon opponents to come forward with alternative suggestions. So far, we have not received any.

I do not believe it is appropriate, however, to return to a debate about the priceless value of our lands and the monumental need to protect them as our living legacy. History will judge us by the lands we steward, not the acres we develop.

Some will claim that this is a lock-out bill, Mr. Chairman, but this is simply not true. This is a preservation bill. It is a bill not just for survivalists but for the millions of Americans for whom the legacy of the California desert must be preserved and available.

I represent a district in urban Los Angeles, Mr. Chairman, and in urban Los Angeles there are millions of people to whom this desert is the most accessible wilderness and outdoor area for middle class Americans. These are people from all walks of life, from all—with a range of abilities to find solitude and recreation in an outdoor area, and it is that constituency as well as the rest of the state constituency to which Senator Cranston referred when he indicated that at least 75 percent of the Californians surveyed in a late 1988 survey support legislation of this type.

I am of the opinion that when the Wilderness Act and the National Parks program were signed into law, our obligation to steward the land was carved in stone.

Again, Mr. Chairman, I thank you for the opportunity to testify today and for your assistance in helping to move this process along.

Senator **Bumpers**. Is your bill identical to S. 11?

Mr. **Levine**. Yes, it is.

Senator **Bumpers**. Thank you very much.

Go ahead, Jerry.

STATEMENT OF HON. JERRY LEWIS, U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. **Lewis**. Senator Bumpers, Senator Cranston. Mr. Chairman, we have come, with the exception of Duncan Hunter, who was not able to be with us, as the four Members in the House who represent the very territory that we are talking about, and we come to express our strong, very strong opposition to the Cranston-Levine proposal.

Very briefly, Mr. Chairman, I am here to present for your record the testimony I presented on the House side, not to take a great deal of your time.

I would like to mention, however, that the Congress has dealt with this matter before and given very specific direction before regarding that which should be the desert planning process.

Before I was elected to the Congress, my almost immediate predecessor was Congressman Jerry Pettis, and he had a desert planning bill.

Subsequent to his death, his wife introduced a similar bill, and she was approached by a member of the Congress whom you will remember, Philip Burton. And Philip suggested that her bill could very well become a monument to Jerry Pettis' work and concern about the desert.

In that process there is little question that environmental concerns were deep within Philip Burton's mind.

The Congress established a process whereby some 25 million acres were to be reviewed by a public commission, that public commission reflecting a great mix of all of the interests of California.

Indeed, over a period of six or seven years after some $8 million were spent, the Bureau of Land Management developed a plan for the desert. That plan is reflected in the bill that we will be introducing.

I would mention further, Mr. Chairman, that the history of our desert area involves history involving a former colleague by the name of Congressman Harry Shepherd, who for 28 years served not just as a member of Congress, but as the chairman of the Subcommittee on Military Construction.

Over those years Congressman Shepherd made every effort to see that those desert lands and military reservations were well preserved.

Mr. Chairman, I would urge very strongly that you review both the Department of Defense as well as Congresswoman Pettis 'recommendations relative to the Bureau of Land Management planning process.

Indeed, it reflects well that which we consider to be the best interests of the desert.

Let me introduce my colleagues Al McCandless and Bill Thomas for comments they might want to make.

[The prepared statement of Mr. Lewis follows:]

JERRY LEWIS
35TH DISTRICT, CALIFORNIA

COMMITTEES:
APPROPRIATIONS
SUBCOMMITTEES:
HUD-INDEPENDENT AGENCIES
FOREIGN OPERATIONS
LEGISLATIVE BRANCH
(RANKING MEMBER)
CHAIRMAN,
HOUSE REPUBLICAN CONFERENCE

Congreſs of the United States
House of Representatives
Washington, DC 20515

WASHINGTON OFFICE:
ROOM 2312
RAYBURN HOUSE OFFICE BUILDING
202-225-5861

DISTRICT OFFICES:
1826 ORANGE TREE LANE
SUITE 104
REDLANDS, CA 92374-2821
714-862-6030
714-793-6801

BARSTOW, CA 92311
619-256-1533

STATEMENT OF THE
HONORABLE JERRY LEWIS (CALIFORNIA-35)
BEFORE THE SENATE ENERGY COMMITTEE'S
SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS
MONDAY, OCTOBER 2, 1989
366 DIRKSEN SENATE OFFICE BUILDING

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE: I WELCOME THE OPPORTUNITY TO APPEAR AND TESTIFY AS YOU CONSIDER S. 11, THE CALIFORNIA DESERT PROTECTION ACT. AS MANY OF YOU MAY REMEMBER, I TESTIFIED BEFORE YOU ON THIS LEGISLATION IN JULY OF 1987 DURING THE 100TH CONGRESS. I INTEND TO RESTATE MANY OF MY PREVIOUS QUESTIONS AND ARGUMENTS TODAY WHILE SHEDDING NEW LIGHT ON THIS COMMITTEE'S EFFORT TO CRAFT A SOUND FORMULA FOR MANAGING THE GOLDEN STATE'S CROWN JEWEL, THE 25 MILLION ACRE CALIFORNIA DESERT.

PASSIONS RUN SO HIGH ON ISSUES OF THIS NATURE THAT I FEEL IT NECESSARY TO LET ALL OF YOU KNOW OF MY LONG INVOLVEMENT WITH MATTERS RELATING TO THE ENVIRONMENT. UNFORTUNATELY, IT IS ALWAYS TEMPTING TO PORTRAY LAND USE ISSUES IN TERMS OF A CONFLICT BETWEEN BUSINESS AND DEVELOPMENT INTERESTS AND THOSE WHO WOULD PUT ASIDE SELFISH INTERESTS TO PROTECT OUR FRAGILE ENVIRONMENT. I AM HERE TODAY TO SUGGEST THAT SUCH A CHARACTERIZATION IS AS SIMPLE AS IT IS UNFAIR. YOU CAN OPPOSE THIS LEGISLATION IN ITS CURRENT FORM WHILE ADVANCING PROPOSALS TO PROTECT THE DESERT ENVIRONS OF SOUTHERN CALIFORNIA.

MY OWN ASSOCIATION WITH ENVIRONMENTAL CAUSES GOES BACK OVER A DECADE TO MY SERVICE IN THE CALIFORNIA GENERAL ASSEMBLY. I DRAFTED LEGISLATION CREATING THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, THE REGIONAL AGENCY WHOSE RECENTLY SUBMITTED AIR QUALITY PLAN FOR THE NATION'S SMOGGIEST AIR BASIN, HAS RECEIVED WIDESPREAD NATIONAL ATTENTION. I SPONSORED THE CACTUS-NAPPER BILL, AN ATTEMPT TO CONTROL THE ILLEGAL TRANSPORT OF CACTI FROM CALIFORNIA'S PUBLIC LANDS. MORE RECENTLY, AND FOR THE THIRD CONSECUTIVE CONGRESS, I HAVE JOINED WITH REP. HENRY WAXMAN IN INTRODUCING LEGISLATION (H.R. 2323) TO REAUTHORIZE A TOUGH AND FLEXIBLE APPROACH TO HELPING THIS NATION'S MAJOR URBAN AREA'S MEET OZONE ATTAINMENT STANDARDS. OUR BILL HAS ATTRACTED THE BIPARTISAN SUPPORT OF OVER 150 MEMBERS AS WELL AS THE ENDORSEMENT OF MANY ENVIRONMENTAL GROUPS, INCLUDING THE SIERRA CLUB.

MY PREDECESSORS, REP. SHIRLEY PETTIS, AND HER LATE HUSBAND, REP. JERRY PETTIS, WERE INSTRUMENTAL IN PASSING THE FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA) IN 1976 WHICH MANDATED A PUBLIC PLANNING PROCESS FOR CALIFORNIA'S PUBLIC LANDS. A 15 MEMBER PUBLIC DESERT ADVISORY COUNCIL SPENT FOUR YEARS DRAFTING A MANAGEMENT PLAN FOR THE DESERT. THEIR MULTIPLE USE PLAN, ACHIEVED THROUGH A CONGRESSIONALLY MANDATED PROCESS, WAS DRAFTED WITH THE WIDESPREAD PARTICIPATION AND SUPPORT OF ENVIRONMENTALISTS, CONSERVATIONISTS, BIOLOGISTS, RANCHERS, MINERS, OFF-ROAD VEHICLE USERS, CAMPERS, ROCK COLLECTORS, AND OTHERS.

WHEN THAT PROCESS WAS COMPLETED AND THE RECOMMENDATIONS WERE FINALIZED, THE REPORT CONTAINED THE FOLLOWING CONCLUSIONS:

> "The desert will continue to be accessible to people in vehicles, as consistent with changing trends and needs...New power lines, and probably power plants will have been constructed in the Desert...The objectives of the Congress and the public will have been achieved: multiple use, resource protection, and sustained yield. (p. 155)."

THE PROCESS UNDERTAKEN BY THE DESERT ADVISORY COUNCIL TOOK OVER FOUR YEARS INVOLVED 50 PUBLIC MEETINGS AND OVER 40,000 INDIVIDUAL COMMENTS. 900 PEOPLE ATTENDED THEIR WORKSHOPS AND A PLAN WAS FINALIZED AT A COST TO THE AMERICAN TAXPAYER OF SOMEWHERE NEAR $8 MILLION.

IN VIRTUALLY EVERY IMPORTANT SENSE, H.R. 780 AND ITS SENATE COUNTERPART S. 11, ARE AN ATTEMPT TO BYPASS THAT PROCESS. THIS LEGISLATION WAS DRAFTED BY AN ELITE FEW BEHIND CLOSED DOORS WITH ABSOLUTELY NO PUBLIC INPUT. IT IS NO SECRET THAT THOSE MOST SUPPORTIVE OF THIS LEGISLATION WERE DISSATISFIED WITH THE FINAL COMPROMISE PLAN. CONSIDER THE MANNER IN WHICH THE END PRODUCT WAS PORTRAYED BY THE LOS ANGELES TIMES IN ITS EDITORIAL OF OCTOBER 13, 1980.

> "...The plan appears to protect the interests of preservationists while recognizing the needs of miners, ranchers, and utility companies. It is a balanced plan; NO ONE GROUP WILL BE ENTIRELY HAPPY WITH IT, and that's a good sign."

TODAY, WE CONSIDER THE LEGISLATION WHICH REFLECTS THE

PREFERENCES OF THE ONE GROUP WHO WALKED AWAY FROM THE COMPROMISE. INDEED, TO CONSIDER H.R. 780 IS TO CIRCUMVENT THE PUBLIC PROCESS, TO VIOLATE THE ESTABLISHED TRUST OF THOSE WHO COMMITTED YEARS TO THE PUBLIC PROCESS THAT CULMINATED IN THE DESERT PLAN. IN THE EYES OF THIS MEMBER AND A SOLID MAJORITY OF HIS SOUTHERN CALIFORNIA CONSTITUENTS WHO LIVE IN, WORK IN, AND LOVE THE DESERT, SUCH A VIOLATION IS NOT ONLY UNBELIEVABLE BUT TOTALLY UNACCEPTABLE.

LET ME ASSURE ALL OF YOU THAT MY CONSTITUENTS WERE NOT THE ONLY ONES LEFT OUT OF THE PROCESS OF DEVELOPING S. 11. IT IS THE CASE IN CALIFORNIA THAT OUR TEACHERS RETIREMENT PENSION PLAN IS HEAVILY INVESTED IN PUBLIC LANDS AND THEIR MINERAL RESOURCES. SOME WHO HAVE TESTIFIED AT PAST HEARINGS ON THIS SUBJECT HAVE REPEATEDLY STATED THAT SUCH LANDS CAN EASILY BE EXCHANGED AFTER THIS LEGISLATION BECOMES LAW. UNTIL TODAY, LADIES AND GENTLEMAN, THAT ASSURANCE HAS GONE LARGELY UNCHALLENGED. AS OF SEPTEMBER 1989, THE 100,000 RETIRED TEACHERS WHO RECEIVE BENEFITS FROM THE CALIFORNIA STATE TEACHERS RETIREMENT SYSTEM AND THEIR ASSOCIATION, HAVE GONE ON RECORD IN OFFICIALLY ADOPTING A POSITION OF OPPOSITION TO THIS LEGISLATION. A COPY OF THEIR LETTER ACCOMPANIES MY STATEMENT AND I ASK THAT IT BE INCLUDED FOR THE RECORD.

LET ME NOW RAISE SOME ADDITIONAL QUESTIONS WITH REGARD TO THE WAY THIS BILL COULD AFFECT CURRENT AND FUTURE USES PLANNED FOR THE CALIFORNIA DESERT. FIRST OF ALL, WE NEED TO GET SOME

IDEA OF THE PUBLIC COSTS ASSOCIATED WITH ADOPTING SUCH AN EXPANSIVE APPROACH TO TRANSFORMING PUBLIC LANDS INTO WILDERNESS AND PARK LANDS. THE FEDERAL GOVERNMENT MAY END UP SPENDING $100 MILLION TO BUY UP OR EXCHANGE BOTH PRIVATE AND STATE OWNED PARCELS. THE BLM IS EXPECTED TO CONDUCT VALIDITY EXAMS ON ALL UNPATENTED MINING CLAIMS WITHIN A THREE YEAR PERIOD. AND YET THIS BILL MAKES NO MEANINGFUL ATTEMPT TO AUGMENT WHAT MOST EVERYONE WILL AGREE ARE ALREADY INADEQUATE RESOURCES FOR THIS NEW MANDATE. IT MERELY AUTHORIZES THE APPROPRIATION OF "SUCH SUMS AS ARE NECESSARY" TO ACQUIRE LANDS OR EXCHANGE THEM UNDER TITLE FOUR.

NOTHING IS MORE IMPORTANT TO THE DESERT THAN WATER. AND YET THE PASSAGE OF THIS LEGISLATION IN ITS CURRENT FORM AMOUNTS TO A VERY CURIOUS FORM OF WATER POLICY. THE BILL CREATES LOTS OF FEDERAL WILDERNESS DESIGNATION BUT IT IS ABSOLUTELY SILENT ON FEDERALLY RESERVED WATER RIGHTS. IT CREATES A 1.5 MILLION ACRE NATIONAL PARK IN THE EAST MOJAVE WITHOUT MAKING ANY EFFORT TO PROTECT THE HUNDREDS OF SMALL AND BIG GAME GUZZLERS BEING MAINTAINED BY THE STATE.

THERE ARE IMPORTANT QUESTIONS SURROUNDING THE COLORADO RIVER AQUEDUCT WHICH RUNS THROUGH WHAT WOULD BE THE JOSHUA TREE NATIONAL PARK UNDER THIS BILL. ACCESS BY VEHICLES OR HELICOPTERS DOES NOT APPEAR TO BE PROVIDED FOR IN THIS BILL. TO MAINTAIN THE AQUEDUCT, ESPECIALLY AT THE PINTO BASIN, SUCH ACCESS WOULD HAVE

TO BE GUARANTEED.

PROPONENTS OF THIS LEGISLATION ARGUE THAT THEY HAVE MADE CHANGES TO PROTECT ALL LEGITIMATE CURRENT USES OF THE DESERT. IN AN ERA OF INCREASING DEMAND FOR ENERGY AND ELECTRICITY, SECTION 411 OF S. 11 MERELY GUARANTEES THAT EXISTING RIGHTS OF WAY FOR POWER CORRIDORS CANNOT BE TERMINATED. IT IS CURIOUSLY SILENT WITH REGARD TO ANY FUTURE NEED TO EXPAND THE CORRIDORS SUCH AS THE ONE THAT NOW RUNS ALONG HIGHWAY I-15 AND THROUGH WHAT THE BILL WOULD DESIGNATE AS PART OF THE NEW 1.5 MILLION ACRE MOJAVE NATIONAL PARK. I ASK YOU TO CONSIDER WHETHER IT IS LIKELY THAT THE CITY OF LOS ANGELES WILL NEED ADDITIONAL ENERGY PIPELINES AND ELECTRIC CABLES TO ACCOMMODATE ITS HISTORICAL PATTERN OF GROWTH. THIS BILL CONTEMPLATES NO SUCH FUTURE.

A REGION SUDDENLY AND UNNECESSARILY DEPRIVED OF ADEQUATE POWER AND WATER SUPPLIES WILL STILL NEED TO PROVIDE JOBS TO ITS PEOPLE. CALIFORNIA'S EXISTING MINING INDUSTRY IS THE PLACE TO FIND THOSE JOBS. THE MINING INDUSTRY IN THE DESERT OF SOUTHERN CALIFORNIA PROVIDES APPROXIMATELY 20,000 JOBS AND GENERATES ANNUAL CASH FLOWS IN EXCESS OF $1.3 BILLION DOLLARS. ACCORDING TO ONE SURVEY, THE AVERAGE ANNUAL WAGES FOR LOCAL BLUE COLLAR WORKERS IN THIS INDUSTRY ARE $36,900.

THE BLM, IN THE DESERT PLANNING PROCESS, EXCLUDED SOME WSA'S INCLUDED IN S. 11 PRECISELY BECAUSE OF THEIR MINERAL POTENTIAL.

BUT THEY ALSO FOUND 1.9 MILLION ACRES WITH SIGNIFICANT MINERAL RESOURCES TO BE SUITABLE FOR PERMANENT WILDERNESS DESIGNATION. THAT IS CALLED A COMPROMISE BETWEEN USES. IF S. 11 IS ENACTED IN ITS CURRENT FORM, THE CALIFORNIA MINING INDUSTRY WILL BE WHOLLY CONFINED TO 16.4% OF THE 25 MILLION ACRES CONTAINED IN THE CALIFORNIA DESERT.

THESE ECONOMIC LIMITATIONS RAISE VITAL NATIONAL SECURITY CONCERNS AS WELL. THE CALIFORNIA DESERT IS A REPOSITORY FOR 24 STRATEGIC MINERALS INCLUDING 97% OF THIS COUNTRY'S RESERVES OF RARE-EARTH MINERALS SUCH AS YTTRIUM AND LANTHANUM. THESE SUBSTANCES ARE CENTRAL TO AMERICA'S COMPETITIVENESS. THEY ARE NEEDED FOR THE SUPERALLOYS THAT ALLOW US TO BUILD OUR LATEST GENERATION OF MILITARY AIRPLANES. THEIR UNIQUE ELECTRONIC PROPERTIES ARE ESSENTIAL TO THE SUPERCONDUCTING SUPERCOLLIDER.

THIS CONCERN WITH NATIONAL SECURITY BRINGS US TO THE MILITARY WITHDRAWAL PORTIONS OF THIS LEGISLATION. THE ARMY IS IN THE PROCESS OF COMPLETING AN ENVIRONMENTAL STUDY FOR A PROPOSED 285,000 ACRE EXPANSION OF ITS NATIONAL TRAINING CENTER AT FT. IRWIN. IN OUR JULY HEARINGS ON THE COMPANION HOUSE BILL (H.R. 780), DEPUTY ASSISTANT DEFENSE SECRETARY STONE MADE IT ABUNDANTLY CLEAR THAT EXISTING AIRSPACE AND LAND IS SIMPLY NOT SUFFICIENT TO CONTINUE TO MEET THE VERY REAL NEEDS OUR ARMED FORCES HAVE FOR REALISTIC TRAINING. LADIES AND GENTLEMEN, ANOTHER OF MY PREDECESSORS, THE LATE CONGRESSMAN HARRY SHEPHERD, SERVED AS

CHAIRMAN OF THE MILITARY CONSTRUCTION APPROPRIATIONS SUBCOMMITTEE MANY YEARS AGO. AMONG HIS LASTING ACCOMPLISHMENTS WAS THE PERMANENT LOCATION OF SEVERAL MILITARY AVIATION FACILITIES IN THE CALIFORNIA DESERT. THESE FACILITIES BOTH GROW AND SHRINK OVER TIME. NOT SURPRISINGLY, THEIR NEED FOR SUCH THINGS AS SUPERSONIC AIRSPACE AND LOW LEVEL OVERFLIGHTS EVOLVES ACCORDINGLY.

THE SPONSORS OF S. 11 WILL ONCE AGAIN ARGUE THAT THEY HAVE ANTICIPATED THESE NEEDS BY CHANGES INCORPORATED INTO THIS YEAR'S BILL. THE SPECIFIC LANGUAGE IN SECTION 702 PROTECTS EXISTING OVERFLIGHTS AND I QUOTE "IN APPROXIMATELY THE SAME LOCATION AND DEGREE AS EXISTED PRIOR" TO THE BILL. LET ME JUST PLACE VERY SPECIAL EMPHASIS ON WHAT GOES ON OUT AT FT. IRWIN. IT IS A COMBAT TRAINING CENTER FOR THE CONVENTIONAL WAR OF THE FUTURE.

ON APRIL 18, 1989 THE HOUSE OVERWHELMINGLY DEFEATED (381-43) A RESOLUTION TO DISAPPROVE THE RECOMMENDATIONS OF THE DEFENSE SECRETARY'S COMMISSION ON BASE CLOSURE AND REALIGNMENT. THOSE RECOMMENDATIONS, WHICH SHOULD RESULT IN THE CLOSURE OR REALIGNMENT OF 145 DOMESTIC MILITARY INSTALLATIONS, ARE ESTIMATED TO SAVE THE FEDERAL GOVERNMENT $5.6 BILLION OVER THE NEXT TWENTY YEARS. CHAPTER FIVE OF THE COMMISSION REPORT WAS VERY SPECIFIC IN THIS REGARD.

> "...the Services should be seeking ways in which they might expand training areas, such as the National Training Center at Ft. Irwin, California to accommodate ...the diminishing ability to accomplish such training in now inadequate areas (p. 21)."

SUCH AN EXPANSION CAN EITHER CONFLICT WITH LANDS ASSOCIATED WITH THE DEATH VALLEY NATIONAL MONUMENT OR THE SODA MOUNTAIN WILDERNESS STUDY AREA (CDCA-242). INCIDENTALLY, THIS IS A PRIME EXAMPLE OF A CONFLICT THAT COULD HAVE BEEN AVOIDED BY ABIDING THE PUBLIC PROCESS MANDATED UNDER FLPMA. IN THAT PROCESS, THE BLM STUDIED THE 118,537 ACRE SODA MOUNTAIN SITE AND CONCLUDED THAT IT SHOULD NOT BE DESIGNATED FOR PERMANENT WILDERNESS.

YOU WILL BE HEARING FROM A GREAT MANY PEOPLE TODAY WHO WILL ADDRESS BOTH SIDES OF THIS ISSUE. MOST DESERT USERS ARE AMONG THE GREATEST CONSERVATIONISTS. THEIR GENUINE APPRECIATION FOR THE LAND, AND RECOGNITION THAT THEIR PERSONAL LIVELIHOOD IS BASED--IN LARGE MEASURE--ON RESPONSIBLE USE OF THE DESERT MUST NOT BE UNDERESTIMATED. MANY OF MY CONSTITUENTS ARE LEFT SHAKING THEIR HEADS (AND OFTEN TIMES THEIR FISTS) AT THE EFFORTS OF ENVIRONMENTAL LOBBYISTS AND WASHINGTON BUREAUCRATS WHO SEEK TO ENACT LEGISLATION FROM 3000 MILES AWAY THAT FAILS TO RECOGNIZE THEIR CONTRIBUTIONS TO THE DESERT.

TEDDY ROOSEVELT SAID IT BEST BACK IN 1908.

> "Our public land policy has for its aim the use of public land so that it will promote local development by the settlement of homemakers; the policy we champion is to serve all the people openly and legitimately, instead of permitting the lands to be converted illegitimately and under cover, to the private benefit of a few."

| BUILDING A WALL AROUND THE DESERT, AS THIS LEGISLATION DOES WILL NOT SERVE THE PEOPLE. THE CALIFORNIA DESERT PLAN WAS BUILT ON PUBLIC TRUST IN A PROCESS THAT INVOLVED ALL THE USERS OF THE DESERT. S. 11 AND COUNTERPART H.R. 780 REPRESENT A GROSS VIOLATION OF THAT TRUST AND AN IMPRACTICAL CIRCUMVENTION OF A LONGSTANDING CONGRESSIONALLY MANDATED PUBLIC POLICY PROCESS.

California Retired Teachers Association

LEGISLATION
Mrs. Ruth O. de Pride, Chairman
2166 Kenilworth Avenue
Hollywood, California 90039
213-664-5764

Dr. Kenneth Brown — Area I
6534 Stonecroft Terrace
Santa Rosa, California 95405
707-539-5932

Mrs. Lois Aaberg — Area II
580 Bryden Way
Marysville, California 95901
916-743-6378

Dr. George Bliss — Area III
11 Brentwood Place
Oakland, California 94602
415-531-6785

Winston Nelson — Area IV
305 Bruce Avenue
Salinas, California 93901
408-422-0230

Mrs. Muriel Mickelson — Area V
206 Helen Avenue
Modesto, California 95354
209-523-3513

Mrs. Bessie Yates — Area VI
5067 Angeles Crest Highway
La Canada, California 91011
818-790-2947

Mrs. Lucile S. Way — Area VII
1050 Avocado Crest Road
La Habra Heights, California 90631
213-697-5835

Mrs. Mildred McKim — Area VIII
450 West 25th Street
San Bernardino, California 92405
714-882-4324

Dr. John H. Downey — Area IX
413 Hutchison Street
Vista, California 92084
619-724-7915

BUSINESS OFFICE
Mrs. Dee Adams,
Executive Director
7770 College Town Drive
Sacramento, California 95826
916-381-3273

September 7, 1989

Jerry Lewis
House of Representatives
House Office Building
Washington, DC 20515

Dear Representative Lewis:

I am writing as president of the California Retired Teachers Association. Our association represents the more than 100,000 retired teachers who receive benefits from the California State Teachers' Retirement System.

I am writing to request an amendment to H.R. 780 (Levine) concerning the California Desert Protection Act of 1989.

We requested this amendment because some of our retirement funding is from the revenues from State School Lands.

We were shocked to learn, however, that the State School Land that could be transferred has never been adequately surveyed for its value. We are concerned that the Department of Interior and the Bureau of Land Management may not have land of equal value to accomplish a trade for our lands.

Whether the State School Lands are of great or little value is unknown because they have not been surveyed. I and all other presently retired teachers would be remiss in our obligations to future retired teachers if we did not protect the potential value of our land resources.

For this reason we respectfully adopt an OPPOSE UNLESS AMENDED position on H.R. 780 (Levine). The amendments we request are:

- All federal land subject to the Department of Interior, the Department of Defense, the Department of General Services, and the Department of Agriculture be available to trade for the value of State School Lands.
- The value of the State School Lands be determined by an independent geological survey by the University of California as approved by the State Lands Commission, the State Department of Conservation and the State Energy Commission.
- The act shall not be effective until 60 percent of the State School Land has been surveyed and traded for land of equal value.

The federal government has kept and used the School Land sections in the Elk Hills area in order to balance the federal budget deficit. We do not intend to allow a similar mistake to happen again without our loud and long complaint being heard and remembered.

Please make the necessary amendments to protect the value of the land and the pension retirement benefits of California's retired teachers.

Thank you for your consideration and understanding of our concerns.

Please let me know if you will adopt the amendments.

If you have any questions, please call or write me at our state office address or David Walrath (916) 441-3300 at 1130 K Street, Sacramento, CA 95814.

Sincerely,

Edwin Williams

Edwin Williams, President
California Retired Teachers Association

EW/bgm

STATEMENT OF HON. AL McCANDLESS, U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. McCandless. Mr. Chairman, I have a prepared statement I would enter with unanimous consent for the record in order to alleviate the time line that you are working under and answer any questions you might have.

[The prepared statement of Mr. McCandless follows:]

TESTIMONY OF THE HONORABLE AL MCCANDLESS
BEFORE THE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS
COMMITTEE ON ENERGY AND NATURAL RESOURCES
OCTOBER 2, 1989

Mr. Chairman, the issues surrounding the California desert are not pro-wilderness versus con. In fact, I doubt that you could find one person in this room who does not support desert wilderness. I strongly believe in it myself. There are areas within the desert of incredible, pristine beauty which can only be protected through wilderness designation. The public, through the open planning process established under the Federal Land Policy and Management Act (FLPMA), recognized that and recommended the special preservation of 4.8 million acres, or 20% of all desert lands, for wilderness, park, or monument status. Desert wilderness will exist. It is important, worthy, and universally accepted. It is not at issue. What _is_ at issue is the way in which that wilderness has been chosen.

Of the two wilderness proposals available for consideration, the first was designed through an open planning process established by the Congress under FLPMA. That Act created a desert advisory committee made up of representatives of all desert users, from environmentalists, zoologists and botanists, to utility representatives, miners and off-road recreationists. Together, this panel of varied experts spent four years gathering public opinion, holding hearings throughout the state, and reading and recording more than 50,000 comments from groups and individuals to assess our desert needs. The result of this effort is the California Desert Plan. A plan created in sunshine, detailed to current uses and amendable to future needs.

By contrast, S. 11 was crafted in closed session without the benefit of public input. No public comments were sought, and no outside concerns beyond a limited special interest were considered.

That, in itself, is enough to arouse my concern. However, a close evaluation of the legislation reveals flaws which mirror the process that created it. Examples of conflict ignored, or dismissed, or undiscovered run rampant throughout the desert legislation being considered here today. In my own district, several major conflicts come immediately to mind. I'd like to briefly discuss two of them.

The first involves five hundred and fifty-seven acres within the City of Coachella. This area, which would be designated as wilderness under S. 11, is also the site of a city-planned and approved 8,000 home development - an area destined to provide low to middle-income housing for Coachella Valley workers and their families. Under the Cranston bill, the land designated for this approved development of homes and schools, a shopping center, an office complex, municipal sites, two hotels, and recreation facilities would be designated as wilderness. While I have no doubt that the development will be a wonderful, attractive, well-kept area, I do doubt that it will qualify as wilderness.

Another conflict flies directly in the face of recent action by the Congress to reduce U.S. dependence on foreign strategic minerals. It involves the Draco exploration site near Music Valley. This area is proposed for inclusion in S. 11's expanded Joshua Tree National Park. It is also the site of a promising new rare earth minerals deposit.

The Draco Exploration Company of Tucson, Arizona, has been developing the Music Valley project since 1984. To date, they have completed the land acquisition, field reconnaissance, economic feasibility and market research necessary to establish a valid claim. The company fully expects to finish the remaining detailed mapping, sampling, and drilling by December of this year. They will file their plan of operation in early 1990.

The Draco site covers an area approximately six miles long by three miles wide, and includes 1,320 unpatented mining claims. Extensive geologic work has shown a broad belt of rare earth mineral deposits which contain an estimated 6.8 million pounds each of Yttrium and lanthanide oxides in 1.7 million tons of ore. The mine's approximate life span is 34 years for a total gross value of as much as $166 million dollars.

The mineral discoveries at Music Valley are important for their strategic values. As vital components of laser crystals, high-tech electronics, supercomputers, jet engines and hyper-strengthened steels they are irreplaceable. And the minerals' additional use in the development of high-temperature superconductors is only now beginning to reach its potential. Clearly, the importance of these minerals to our national economic and strategic well-being cannot be ignored, and congressional action on H.R. 491 shows that it will not be.

Why then, was this strategic minerals site included in S. 11 ? It certainly doesn't belong there. My guess is that it was included because the authors of S. 11 didn't have the benefit of public input when drawing their maps. The same must be true of the development within the City of Coachella. I'd guess that the bill's authors didn't know that these areas existed, because certainly they would have cared.

Mr. Chairman, I've cited just two of a number impending conflicts, not because they are the only ones within S. 11, and not to set the stage for dealing them out of future legislation. I've mentioned them because they are indicative of the problems created when a few like-minded people lock themselves in a room to create a land use plan for all others. That was the genisis of S. 11, and that is its fatal flaw. Without the openess of public input, the sponsors of S. 11 have created a darkened bill, and what is a desert without sunshine?

Senator BUMPERS. I appreciate that very much. Congressman.

STATEMENT OF HON. WILLIAM M. THOMAS, U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. THOMAS. Mr. Chairman, I, too, would ask unanimous consent that my full written testimony be placed in the record.

I want to make a few comments about the plan we have before us today.

Over a decade ago a number of us were concerned about the desert, as was Congress, as opposed to some of our colleagues who recently discovered the desert.

When Congress passed the Federal Land Policy and Management Act, among a number of requirements was, of course, the direction that the BLM forward a list of recommended wilderness areas within the California Desert Conservation Area to the Secretary of the Interior no later than 1991.

Now, that is a long time, and the process went on over four years, 50 public hearings, 50,000 public responses and $8 million, and the California Desert Plan was unanimously endorsed by the 15 members of the California Desert Advisory Committee, not a majority and a minority report on the plan, but unanimously endorsed, including some of the groups who are currently now asking for a different approach.

The citizen group that made up the California Desert Advisory Committee had been selected from a wide spectrum of Californian desert users.

That plan was forwarded to the Department of the Interior.

There were a number of compromises made on all sides during the creation of that plan with the understanding that after all, since this is the finalization of the process, we will make those fundamental compromises to move the project ahead because we believe in preserving those areas that should be preserved.

Now, obviously, no one group was entirely pleased with the final plan, and if you will examine the arguments at the time, I believe the L.A. Times editorial pretty well summed it up in looking at all the grumbling on both sides that believed that the plan was fairly well balanced and fair.

In fact, a federal district court in the Ninth Circuit, a court of appeals both reviewing challenges to the plan came to the same conclusion.

Since that period the plan has not been static and inflexible. In the eight years since its implementation the original plan has been amended many times to reflect changing circumstances and requirements.

It is a process that is ongoing. Each year individuals and public agencies can propose amendments to that plan.

Each proposed amendment is subjected to an environmental analysis and a 60-day public comment period. Groups who are pushing S. 11 have participated in that program, the entire amendment process as overseen by the California Desert Advisory Council, which is the successor to the original committee, and last year the BLM in California completed and subsequently forward its wilderness recommendation package.

Within that plan over 2.1 million acres have been offered. In my district alone, almost a million acres have been offered to be designated as wilderness.

The Secretary of the Interior is expected to forward these wilderness recommendations for the President's approval to meet the 1991 deadline. We are on the verge of completing a process in which everyone has participated, everyone has given, very few have taken. And, in light of the foregoing, I think it is a fundamental breach of faith which this legislation represents.

Bluntly put, S. 11 is the product of a small minority attempting to achieve through legislative fiat what they could not achieve through open negotiation. In their zeal the proponents of this legislation are willing to throw away the 13 years of time, effort, money and good will spent towards creating a balanced and equitable management plan for the California desert.

Now, where is the justification for such action and such a bill? Are preservationist groups unhappy with the specific actions approved or not approved by the BLM under the auspices of the desert plan? Or are they just dissatisfied with the wilderness recommendations? What exactly is the problem.

If, as is obvious, the Sierra Club, the Wilderness Society, the National Audubon Society and other are dissatisfied with specific elements of the way the California desert are being managed, why are we not addressing those specific concerns under the umbrella that was created by Congress to address those problems in the first place?

To make an offer, Mr. Chairman, as has been made repeatedly to address any legitimate conflicts, to sit down and tell me what you want removed out of this particular bill, which is putting all of the land virtually available in the desert under this program, is a process which many people believe is fundamentally unfair since they have already made those compromises under the California desert plan. They have made the compromise. Now come back and tell me what you do not want out of this package.

In some, Mr. Chairman, the proponents of S. 11 should be required to convincingly justify why it is no longer possible for them to work within the framework of the California desert plan. Why must all of the groups who have already made those significant compromises which produced the California desert plan now go to the authors of the bill and cite specific locations to be removed? That simply is a violation of the process that Congress entered into in the first place.

I think we should require that we operate under the California desert plan. We should not impose an extremist preservationist vision on everyone who chooses to live, work or play in the desert, and that if the purpose of S. 11 is to preserve and make available, I would say that they certainly have succeeded in the former and have failed woefully in the latter.

The process of accommodation and compromise which has gone on for over a decade is on the verge of producing a plan on a time table provided in the legislation, and these people have decided to forward their particular plan void of compromise, and it just seems to me absolutely inappropriate for us to consider the legislation currently in front of us until we have been given sufficient reason to reject the compromise process that has almost reached its conclusion. Thank you, Mr. Chairman.

[The prepared statement of Mr. Thomas follows:]

Statement of
THE HONORABLE WILLIAM M. THOMAS
before the
Senate Subcommittee on Public Lands, National Parks, and Forests
October 2, 1989

Mr. Chairman, I appreciate this opportunity to offer my comments on S. 11.

It is no secret I oppose this bill. My opposition, however, does not stem from a feeling that wilderness areas are unnecessary within the 25 million acres - a quarter of the state - encompassed by the California Desert. Rather, my opposition is centered upon the fact that S. 11 does not follow the Congressionally mandated process, set up at considerable cost of time, effort, and money, and instituted just eight years ago to ensure the responsible administration of an invaluable desert resource. Instead, S. 11 jettisons the process, substituting the desires of a few for the hard fought compromises agreed upon and adhered to in good faith by the many.

I do not intend to go into a detailed exposition of the period that culminated in the adoption of the California Desert Plan in December of 1980. However, I would like to briefly summarize a bit of that not too distant history because it's important to see just how much effort went into the existing desert management plan.

In 1976, Congress passed the "Federal Land Policy and Management Act" (FLPMA). Sections 601 and 603 of FLPMA created the California Desert Conservation Area (CDCA) and directed the Bureau of Land Management (BLM) to "prepare and implement a comprehensive, long-range plan for the management, use, development, and protection of the public lands within the CDCA ... (which) shall take into account principles of multiple use and sustained yield in providing for resource use and development, including, but not limited to, maintenance of environmental quality, rights-of-way, and mineral development." As part of the planning process, BLM was also directed to forward a list of recommended wilderness areas within the CDCA to the Secretary of the Interior no later than 1991.

Four years, 50 public hearings, 50,000 public responses, and $8 million later, the California Desert Plan was unanimously endorsed by the 15 members of the California Desert Advisory Committee (the citizen group whose members had been selected from a wide spectrum of California Desert users) and forwarded to the Department of Interior. The Desert Plan was subsequently approved by the Secretaries of the Interior of both a Democrat and Republican Administration.

No one group was entirely pleased with the final plan. Some thought it was biased towards "consumptive interests" (although over 65% of the 12.1 million acres of CDCA land administered by BLM was designated as either "to be recommended for wilderness" or as limited use where sensitive values were to be protected). Others felt it went too far in the direction of preservation. An L.A. Times editorial at the time took all the grumbling to mean that the Plan was well balanced and fair. A federal district court and the Ninth Circuit Court of Appeals, both reviewing challenges to the Plan, came to the same conclusion as the Times.

If that were the end of the story, and if the California Desert Plan had, from that point on, remained static and inflexible, perhaps there would be some justification for the piece of legislation you are now considering. But the Plan has not remained static and inflexible. In the eight years since its implementation, the original Plan has been amended many times to reflect changing circumstances and requirements. Every year, individuals and public agencies can propose amendments to the Plan. Each proposed amendment is subjected to an environmental analysis and a 60 day public comment period. And the entire amendment process is overseen by the California Desert Advisory Council, a 15 member citizen body that is the successor to the original Advisory Committee. Former National Park Service (NPS)

Director William Penn Mott, Jr., commenting on the amendment process in a letter dated June 3, 1988, said;

> "The Desert Plan amendment process offers an excellent opportunity to review planning decisions by which the Desert lands are managed and for what uses. This process allows for continued public input and dialogue on the plan. Proposed changes are reviewed by the citizen advisory board and all receive a thorough environmental review. The existing mechanisms for modification embodied in the (Plan) do, indeed, provide the land use planning flexibility originally sought and envisioned by Congress"

[Director Mott went on, incidentally, to say that he believed "the additional acreage in (what was then S. 7) for expansion of the monuments is not necessary" and that he did not "believe it appropriate to designate the East Mojave as a national park." He closed by expressing the NPS's opposition to this legislation.]

Last year, BLM/California completed - and subsequently forwarded to the Secretary of the Interior - its wilderness recommendation package for the state of California. Within the CDCA, over 2.1 million acres encompassing 53 Wilderness Study Areas (WSAs) have been recommended for wilderness designation (in my own district alone, the BLM wilderness package recommends nearly 900,000 acres, the most for any affected Congressional District). The Secretary of Interior is expected to forward these wilderness recommendations for the President's approval, after which they will be submitted to Congress in accordance with FLMPA.

The thing to remember about BLM's wilderness recommendations, though, is that the general public was an integral part of the process. In the same way the original California Desert Plan was formulated, and in the same way amendments are considered to that Plan each year, the wilderness deliberations were open to public comment and suggestion. Hearings were held, a draft plan was circulated, responses were solicited, and the public's input was incorporated into the final package.

Such public participation in the decision making process stands in stark contrast to the method by which the shape and substance of S. 11 came into being. This legislation would, by the stroke of a pen, place over 10 million acres of California

Desert into parks or wilderness. Instantaneously, the percentage of California lands under federal wilderness designation would triple, growing to over 15% of total state acreage. Yet where was the public participation? Where was the process everyone had agreed to just a few years before?

The answer to those questions comes from the sponsor of S. 11, Senator Alan Cranston. A little more than five years after the implementation of the California Desert Plan, Senator Cranston introduced the "California Desert Protection Act of 1986" (S. 2061), a piece of legislation that has changed little over the last two Congresses. In his remarks which accompanied the introduction of S. 2061 and were included in the Congressional Record of February 6, 1986, Senator Cranston said;

> "During the past year, I have worked with California conservationists to determine the highest and best use for each area within the California Desert. This legislation implements the conservationist's proposal, providing permanent, lasting protection for the beauty and wildness of the California Desert."

Even if the Senator had not been so candid in describing the exclusionary manner in which his legislation was crafted, I think a cursory glance at S. 11 and its House equivalent, H.R. 780, makes it abundantly clear just which interest groups were, and which were not, invited to participate in the original planning sessions from which these bills emerged.

The military offers a good example of a group that was excluded from those original planning sessions and which, as a result, will pay the price should this legislation be enacted. There are five military installations within the CDCA, two of which, the Naval Weapons Center at China Lake and Edwards A.F.B., are within my district. China Lake is the nation's premier weapons testing and development facility, producing navigation and guidance systems for both aircraft and missiles. Edwards A.F.B. is the landing site of the Space Shuttle and the testing base for the B1, and now the B2, bombers. The California Desert is one of the last remaining places in the U.S. where the low-level, high-speed training so crucial to our national defense can still occur. As such, the commander of Edwards has estimated that over 90,000 military flights per year are flown in the airspace above the CDCA, most of them at about 200 ft. above the ground.

Proponents of S. 11 maintain that the bill would not interfere with military flight operations because of a provision grandfathering flight paths "in approximately the same location and degree as existed prior to the date of enactment". However, such a caveat fails to consider that technology, and therefore training requirements, are constantly changing. What will happen when current operating procedures no longer accommodate the mission requirements of a future time? Under the provisions of S. 11, that future mission will simply not be done.

Another interest that was allowed very little input into the provisions of this bill (and will suffer accordingly should S. 11 become law), is mining. The U.S. Bureau of Mines and the U.S. Geological Survey estimate that 65 minerals, 27 considered strategic and 3 considered critical, are potentially recoverable within the California Desert. All of the nation's borates (a major U.S. export commodity) and 97% of the available domestic rare earths (representing half of the free world's production) are found here. Known mineral reserves have an estimated value exceeding $300 billion.

Yet such figures seem not to faze the supporters of S. 11. According to the Wilderness Society, " ... all valid mineral rights associated with existing mining claims or leases within the proposal are legally protected under provisions of (this bill)". What the Wilderness Society fails to mention is that a "valid mineral rights" determination will be extended only to claims that can prove an economic reserve on the day of enactment. All others would be cancelled and all future exploration in either park lands or wilderness areas would be prohibited. The assumption, obviously, is that all potential reserves have been located, no new extraction technologies will be developed, and no changes in current market conditions will ever occur. But since it's inevitable that none of those conditions will hold true (a situation we've experienced already in the case of gold), the effect of S. 11 would be to foreclose the recovery of potential reserves for all time.

Mr. Chairman, the list of those who would be adversely affected by the passage of S. 11 includes, not just military and mining concerns, but also every individual and user group whose interests conflict with that of absolute preservation. Over half of existing grazing in the CDCA would be eliminated as grazing permits in the park lands were not renewed and those on wilderness areas were severely curtailed. Many, perhaps most, of the recreational opportunities currently available to both old and young alike would be lost with the elimination of mechanized access to over 8 million acres. The expansion of utility corridors to serve a Southern California population projected to grow by 45% in the year 2010 would be prevented. The list goes on and on.

But my primary purpose here today is not to hammer out a point by point breakdown of how onerous the effects of S. 11 will be. Others scheduled to testify before you today will make those points clear enough. What I do want to leave you with is an appreciation for the fundamental unfairness and breach of faith which this legislation represents. Bluntly put, S. 11 is the product of a small minority attempting to achieve through legislative fiat what they could not achieve through open negotiation. In their zeal, the proponents of this legislation are willing to throw away the thirteen years of time, effort, and money spent towards creating a balanced and equitable management plan for the California Desert. Where is the justification for such an action? Are preservationist groups unhappy with specific actions approved or not approved by the BLM under the auspices of the Desert Plan? Or are they just dissatisfied with the BLM/California wilderness recommendations? What exactly is the problem? If, as is obvious, the Sierra Club, the Wilderness Society, the National Audubon Society, and others are dissatisfied with specific elements of the way the California Desert is being managed, why aren't we addressing those specific concerns instead of throwing out all that has gone before?

In sum, Mr. Chairman, the proponents of S. 11 should be required to convincingly justify why it is no longer possible for them to work within the framework of the California Desert Plan. Unless and until they do so, their current effort to legislatively impose a preservationist vision on everyone who chooses to live, work, or play in the desert should be resisted.

Senator BUMPERS. What is the biggest city in your district?

Mr. THOMAS. It is Bakersfield. It contains the desert tortoise area. It contains Death Valley national monument and most of the land that everyone is looking at.

Senator BUMPERS. How many acres in your district are in S. 11?

Mr. THOMAS. About 2.3 million.

Senator BUMPERS. How about you, Congressman McCandless?

Mr. MCCANDLESS. I have approximately 500,000.

Mr. LEWIS. And almost the balance is mine. Much of the balance is mine, well over a million and a half acres.

Senator BUMPERS. What is the biggest city in your district?

Mr. LEWIS. Redlands, California, which is in the valley away from the desert.

Senator BUMPERS. How many acres are embraced in the California Desert Corporation Plan, Congressman Thomas?

Mr. LEWIS. Approximately 2.7 million.

Mr. THOMAS. About two and three-quarters. I have almost a million acres in that particular plan. So, as you can see——

Senator BUMPERS. Staff tells me there's 12 million acres in the plan.

Mr. THOMAS. For wilderness designation?

Senator BUMPERS. Three million for wilderness. I am talking about the total.

Mr. MCCANDLESS. I believe you will find that in the desert area currently a part of the existing legislation, that that would represent the area of study from which their recommendations have been forthcoming.

Mr. LEWIS. In terms of a pure wilderness designation, the S. 11 proposes in the neighborhood of almost three times as much land as the Bureau of Land Management proposal, a proposal which was developed after almost a full decade of very careful review by very high quality professionals with lots of public input, some 40,000 hours of public input.

It is fundamental to ask this question, it seems to me. If the Congress has established a process where there will be a whole series of hearings, people with interest in the desert have an opportunity to provide input and at the last minute one small group decides they do not like the compromise, can they walk into the room and essentially throw out all of that work and waste those millions of dollars spent?

It is such a fundamental violation of the process which I think is compromise in the environmental field that it totally destroys the credibility of that process.

Mr. MCCANDLESS. Mr. Chairman, if I may, I would like to correct the record. I told you 500,000 square acres. It is over a million in the study area. I was thinking in terms of miles, square miles.

Mr. THOMAS. Let me give you an example of the kind of compromise we are talking about.

When you compare the BLM desert plan and S. 11, one of the obvious comparisons beyond just pure acreage is the question of various national parks.

It would seem to me if someone was really interested in helping us take a look at Death Valley national monument, it is sixth in visitor numbers, but it is 15th in funding.

If someone really wanted to help us, yes, we could make it a national park, but I wish people had been involved earlier in helping to get money to try to run that program.

And when you say you can run cattle in wilderness, if you will examine S. 11, it puts significant numbers of acres in national park. You do not run cattle in national parks.

And so, when you count the total wilderness, you have to look at the conflict between how it is designated and for what purpose it is going to be used.

Sometime the offer that is offered is not there in real life.

Senator **Bumpers**. One other thing that nobody has talked about is mining claims. As I understand it, S. 11 recognizes existing mining claims, does it not?

Senator Wilson mentioned grazing and mining. I was wondering what objection he had to mining because the bill recognizes mining claims.

Mr. **Lewis**. Without presuming to presume all that is in S. 11, the bill, as I understand it, does recognize some mining claims, but there is many a mining claim. To make that point for my portion of the record, I have a letter that I will include in the record from the California Retired Teachers Association.

As you may know, teachers, the teachers' retirement system has made available to it alternate sections of desert land, and it is their concern that under S. 11 they could very well have undermined very significant portions of their potential mineral reserves that could benefit that retirement system.

Not only will retired teachers be addressing this question, I would suggest that a lot of California teachers in general will be addressing this question.

Mr. **Thomas**. Mr. Chairman, to specifically address your question about mining claims, as you might guess, given the district that I have had for over a decade, that we have been involved with a lot of this mining, and the park was one of our early concerns.

There was an asbestos-free talc mine in the national monument area which we had difficulty in terms of trying to utilize.

Even though you may recognize current legitimate claims, it is just like we will address any legitimate conflicts.

Mining is a discovery operation, and although there is a large area of the desert that is fairly well known, there is still a significant possibility in this mineral-rich area for discovering valuable resources.

I have no qualms whatsoever in preserving areas that ought to be preserved, but one of the things that S. 11 does in terms of its sheer volume of acres that it locks up is significantly hamper the possibility for discovering minerals, some of them strategic, that we may need in the near future.

Recognizing current mining claims and requiring all future areas to be off limits for prospecting are really two different things.

Under the California desert plan the concerns of the miners, the concerns of those critically sensitive ecological areas were balanced through a process of compromise.

That process of compromise simply is not present in S. 11. It is a very slanted, one-sided view of what ought to be done.

Senator **Bumpers**. The answer to the question is, it does recognize existing mining claims.

Mr. **McCandless**. I was going to address the subject, I think, in the manner in which you would like to have it addressed.

It is my understanding that if there is a valid claim currently existing on the record and being operated and there are certain conditions and criteria to define operations, then under the bill's language that is a permitted use.

However, in the proposed boundaries of the new Joshua Tree National Park, there is an exploration going on that has been going on since 1984. To date, no mining has taken place, but a great deal of money has been spent because it is a new mineral rare earth which can be used in a number of ways and other types of optical equipment.

They are proceeding through a course of events which will ultimately bring that into a mining state.

If the bill passes in its present form, that kind of mining would not be permitted. Another legislative act would have to take place modifying the existing language.

Senator **Bumpers**. Why is it that the Department of the Interior has never finalized this plan. They have never signed off on it. Where is it?

Mr. **McCandless**. Mr. Chairman, the deadline is a completion of a time line which includes 1991. And, as my colleague, Mr. Thomas, pointed out, there were plateaus in the process, the last of which is 1991, submitting the final wilderness area recommendations to the Secretary of the Interior under the law that created the program to begin with.

Senator **Bumpers**. These recommendations are not final, are they?

Mr. **McCandless**. They are up to the Secretary of the Interior.

Senator **Bumpers**. He has had them on his desk for eight months. What is the holdup?

Mr. **Thomas**. I appreciate that, sir, but if you look at the last eight months, there was a whole new administration that came in, a new secretary was named, new staffers have been named.

In terms of a changeover, you get up to speed and you examine it. Last year BLM California completed the plan according to the timetable that Congress had approved. They are in the process of Interior in reviewing it.

It just seems to me that we ought to honor the timetable that Congress proposed.

I think the real concern is that some folks believe that the Secretary of the Interior is actually going to accept the compromise that all of the people of California agreed was the appropriate way to use the desert. Hence, the reason for this bill and the push to get it passed prior to the regular scheduled timetable for the completion of the process.

Senator **Bumpers**. They told this subcommittee in 1987 that they would have them signed off on by 1989. We are getting pretty close to the end of 1989. And if there is any plan to sign off on it, I am not aware of it.

Mr. **Lewis**. I understand the point you are making. We have similar concerns, but we have watched this process; that is, the public hearing process, the evaluation of desert land planning process, for a lot of years as representatives of the desert. It is our concern that we not be rushed to judgment in this process.

Indeed, there has been over the years at Congressional direction a very clearly outlined procedure whereby the public could provide input whereby people throughout the state who had understanding of the desert could provide input.

At the very end of the process it would appear that there are many—there are some who want to bypass that congressional directive.

We will be, as a group, introducing a bill shortly that essentially would take what will be the BLM plan and then put it in statute form.

The only exception presently which we may contemplate to that BLM plan, as we understand it, is to provide for around the parks and monuments access roads that would allow people such as the aged, the disabled, the handicapped to have adequate access to those parks and monuments.

Mr. McCandless. Other than the backpacking end.

Mr. Thomas. Whenever we look at government projects, we like to say they are on time and under budget. This one is clearly under the original budget. It has been funded at about half that level. It is still on time.

I appreciate the concern that it is not here ahead of time, but it still has time.

Senator Bumpers. Gentlemen, thank you all very much.

Our next witness is our new BLM Director. I believe that this is his first appearance before the committee.

We are very pleased to have you, Mr. Jamison.

Mr. Jamison, the Director of the Bureau of Land Management, accompanied by Ed Hastey, State Director, California State Office of the BLM, and Ed Rothfuss, Superintendent, Death Valley National Monument.

Cy, please proceed.

STATEMENT OF CY JAMISON, DIRECTOR, BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY ED HASTEY, STATE DIRECTOR, CALIFORNIA STATE OFFICE, BUREAU OF LAND MANAGEMENT AND ED ROTHFUSS, SUPERINTENDENT, DEATH VALLEY NATIONAL MONUMENT

Mr. Jamison. Thank you, Mr. Chairman. It is a pleasure to be here.

Senator Bumpers. You will summarize this Sears & Roebuck catalog, will you not?

Mr. Jamison. Absolutely.

We are strongly opposed to the enactment of S. 11. The Department has completed its review of BLM's wilderness recommendations for California.

A final legal analysis is being prepared. When the administration's review is completed and the recommendations are forwarded by the President, we would certainly hope that the subcommittee would provide us the opportunity for a hearing on the President's proposal.

One must keep in mind we are following the exact procedures established into law by Congress.

Setting that aside, we are strongly opposed to the enactment of S. 11 for the following reasons.

The California Desert plan, costing $8 million to develop, was prepared as required by Congress and was approved by two administrations beginning with Secretary Andrus in 1980.

The plan is an excellent consensus developed from the ground up by the many users of the California Desert. Proposed boundary line enlargements of the National Park Service lands and BLM lands in S. 11 do not reflect sound on-the-ground management.

Also, S. 11 does not allow for future transportation and utility rights of way to meet the growing energy needs of Southern California.

Also, it does not address the potential loss of minerals critical to the economy and the security of our Nation.

Further, S. 11 does not realistically address the issues of land acquisition. For example, some 90 sections alone are held in private ownership in the proposed Mojave National Park.

Also, it does not address adverse economic impacts on communities. Take, for example, the livestock industry, that will be eliminated in some communities.

Also, it does not address the loss of viable wild horse and burro herd areas, and it does not address the loss of recreation opportunities. Currently there are over 21 million—and I underline 21 million—yearly visitors in the desert.

Also, it does not address the loss of hunting areas or the inability to improve wildlife habitat, both of which could have a negative impact on wildlife.

On the other hand, the California Desert plan addresses the above concerns and takes into account the following: first, careful development with broad public participation and input.

Also, the desert plan takes into account the needs and concerns of other Federal agencies such as the National Park Service and the Armed Forces, along with State and local governments.

In addition, it strikes a reasonable balance among competing uses for wilderness, recreation uses of all types, and enhanced wildlife habitat, just to name a few.

It also provides workable boundaries for cost-efficient land management and resource management. It considers private and State landholdings. It leaves open appropriate areas for mineral exploration that includes the rare earths and strategic and critical materials.

It provides for little-understood but very important energy and communication corridors serving one of the Nation's largest metropolitan areas.

It also provides for historical uses such as livestock grazing.

In addition, the desert plan takes into account the current and future economic growth of local communities. It provides for the management of special areas, 88 of which are already in place.

Mr. Chairman, I would also like to make a few comments on the General Accounting Office report on wildlife protection in the California Desert.

I wish the folks at GAO would have had their eyes and ears both open when they did their report. If I would rate the report, I would not merit it a passing grade, it would fail.

The GAO report consists of only a partial picture of BLM's wildlife activities in the California Desert. Numerous wildlife protection activities were conducted outside the scope of wildlife activity plans which were the focus of the GAO report.

In addition, the GAO report portrays a lack of concern and initiative on BLM's part with respect to the desert tortoise and other species. The facts are quite the contrary.

BLM has been at the forefront of desert tortoise research, inventory and management for more than ten years. We have also been a lead agency during that time in protecting other species and habitats.

In closing, we are deeply concerned at what appears to be the fundamental premise of this proposed legislation, that western public lands will be destroyed unless they are saved by putting them in national parks or by designating them as wilderness. That is wrong, and that mind-set would gut the multiple use philosophy mandated by Congress.

The Department is going to do what Congress asks us to do. We will need the formal review of other departments such as Defense before giving a final recommendation to the President.

I think it is absolutely necessary that the President have all the advice and counsel before he submits his recommendation to Congress.

We would like to complete our assignment as the law requires. Accordingly, when that is done, a hearing by the Committee on the Administration's proposal would be welcome.

Thank you, Mr. Chairman. That concludes my remarks, and all three of us are prepared for questions.

[The prepared statement of Mr. Jamison and additional material follow:]

OCT 2 1989

STATEMENT OF CY JAMISON, DIRECTOR, BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS, COMMITTEE ON ENERGY AND NATURAL RESOURCES, UNITED STATES SENATE, ON S. 11, A BILL "TO DESIGNATE CERTAIN LANDS IN THE CALIFORNIA DESERT AS WILDERNESS, TO ESTABLISH THE DEATH VALLEY, JOSHUA TREE, AND MOJAVE NATIONAL PARKS, AND FOR OTHER PURPOSES."

I appreciate the opportunity to appear here today to discuss S. 11, a bill that would be cited as the "California Desert Protection Act of 1989". Accompanying me is Ed Hastey, Bureau of Land Management State Director for California.

We strongly oppose the enactment of S. 11.

The Department has completed its review of the BLM recommendations on 207 Wilderness Study Areas (WSAs) for the entire State of California, including 136 WSAs in the California Desert. A final legal analysis is being prepared. When the Administration's review is completed and the recommendations are forwarded by the President to Congress, we certainly hope that the Subcommittee will provide us with an opportunity for a hearing on the proposal.

S. 11 states that it is intended to provide protection for public lands in the California Desert. To accomplish its stated intent, it would, among other provisions, designate vast unsuitable areas of Southern California as new wilderness, unnecessarily expand the National Park System, and require acquisition of expensive lands now owned by Indian allottees near Palm Springs. It would create uncertainty for countless numbers of citizens whose property rights could be in jeopardy under this bill because of the existence of mining claims within the boundaries of proposed National Park lands. It would ignore the results of a 14-year planning process and 9 years of implementation in the area. Much of the land is already under the stewardship of the Bureau of Land Management (BLM) and the National Park Service (NPS).

We do not believe this bill would improve the current management of the California Desert that is already achieved under existing authorities. In fact, it represents a breach of faith with those who, less than 10 years ago, worked out a reasonable and balanced solution for Desert conservation and use. We believe this legislation would have a great negative impact on this 25 million-acre area, which comprises more than one quarter of the State of California. It runs absolutely counter to the recommendations of our career professional employees. When Congress approved the Federal Land Policy and Management Act in 1976, it established the principle that the public lands would be managed for multiple uses. That was a sound decision then and it still is today. Multiple use management does work. When properly implemented, it benefits both the public and the publicly owned lands and resources. Nowhere has multiple use management been more challenging than the Southern California Desert. And nowhere has the challenge been met by BLM more faithfully than the California Desert Conservation Area.

S. 11 sets out as policy that certain public lands administered by BLM must be included within the National Park System and the National Wilderness Preservation System in order to preserve them in their natural state or to preserve historical or cultural values of the California Desert. This is an incorrect conclusion unsupported by facts. S. 11 contains incorrect findings regarding certain resources of the California Desert. They do not portray the resources adequately or record a number of important and significant facts about the California Desert, including:

- All that has been done over the past 13 years to protect and manage the California Desert;
- The reasons for Congressional establishment of the California Desert Conservation Area;
- The extensive planning that resulted in the Desert Plan and the role of the Advisory Committee, both previously mandated by Congress;
- The adverse economic impact S. 11 would have on rural communities and county planning processes that have relied on our Desert Plan;
- The highly significant mineral values, including strategic minerals and rare earths, none of which are addressed in this bill;
- The negative impact on wildlife of restrictions on hunting and the limitations imposed on wildlife habitat improvements,
- Negative effects of wilderness designation or National Park status on longstanding grazing operations and maintenance of viable wild burro herds;

- The importance of utility rights-of-way for meeting present and future needs of the Los Angeles and San Diego metropolitan areas; and

- the impact of the potential loss of certain types of recreation opportunities, including recreational vehicle use, on millions of current recreation users who engage in activities other than wilderness experiences.

Ultimately, the bill presumes that public lands and resource values can only be protected or enhanced by including lands in the National Park System or the National Wilderness Preservation System. This is not true.

I will now discuss the history of the California Desert area and our major concerns with S. 11.

LEGISLATION, PLAN DEVELOPMENT, AND COORDINATION

In the late 1960's, the Bureau of Land Management (BLM) identified the problems associated with a growing Southern California population and the enormous uncontrolled recreation uses that were beginning to occur. A general plan was developed in the late 1960's that led to Congressional and Administration support for the designation of a California Desert Conservation Area (CDCA). This was accomplished through enactment of section 601 of the Federal Land Policy and Management Act (FLPMA), based upon findings by BLM in the period from 1965 to 1975. Section 601 of that Act provides specific direction by Congress as to how these lands are to be managed. It directs the Secretary to "prepare and implement a comprehensive long-range plan for the management, use, development, and protection of the public lands within the CDCA. Such plan shall take into account the principles of multiple use and sustained yield in providing for resource use and development, including, but not limited to, maintenance of environmental quality, rights-of-way, and mineral development." This plan was prepared as required.

Section 601 also directs the Secretary of the Interior to establish a California Desert Conservation Area Advisory Committee to oversee preparation and implementation of a comprehensive, long-range plan for the CDCA. The Secretary appointed experts in many fields to guide both the inventory and planning effort. Development of the plan cost the taxpayers more than $8 million. Scientists with expertise in biology, zoology, architecture, urban planning, earth sciences, and environmental science joined with experts representing the mining industry, outdoor recreation, cultural and historical resources, and Native American resources to form a 15-member committee.

The Desert Plan was prepared with extensive public involvement and consultation with local, county, State, and Federal officials both to protect the unique resources and values of the Desert, and assure prudent public land resource management and use. After 3 years of intense data collection and analyses and numerous public meetings, 3 public opinion polls, 18,000 copies of the draft planning document and related environmental impact statement were distributed for review and comment. Following that, more than a dozen formal hearings and numerous workshops were held and attended by over 900 people, with the committee reviewing nearly 9,000 written responses containing more than 40,000 individual comments.

The result was a Plan that met all of the requirements set by Congress, balancing diverse public demands and needs. Development of the Plan included close coordination with the Department of Defense to ensure that military mission requirements were properly recognized, and excellent cooperation of the counties and State to ensure consistency with local plans.

Widely endorsed, the Plan was approved in 1980 by Secretary Andrus. As a 1980 Los Angeles Times editorial stated, the Plan "protects the interests of preservationists, while recognizing the needs of miners, ranchers and utility companies. It is a balanced plan no one group will be entirely happy with, and that's a good sign."

S. 11 fails to recognize the vast amount of work that went into this carefully balanced Plan. The Plan identifies classes of land use that assure protection of public lands and orderly and beneficial use of their resources for all Americans, now and in the future. It provides categories for controlled use -- wilderness preservation; limited use -- protection of sensitive areas; moderate use; and intensive use -- including mitigation of impacts. Almost 8 million acres are classified under the controlled or limited categories, and only 500,000 acres are designated in the high-use categories.

As a result, with Congressional approval, more than $8 million was spent to develop the Desert Plan, which has the full support of most local counties and municipalities, State agencies, and most public land user constituencies. Military and other Federal agencies, including the National Park Service, fully concurred in the final Desert Plan, including preliminary wilderness proposals adjacent to their boundaries.

Since that time, BLM has been busy implementing and refining the Plan. So far, hundreds of land management actions have been completed, nearly $75 million spent and numerous steps taken to improve management of this vast area. Since planning is dynamic, BLM has also carefully evaluated more than 360 public requests for amendments to the Plan. After required analyses and environmental studies, slightly more than 100 of these amendments have been made.

One key accomplishment has been Interior's commitment to acquiring key parcels of land for wildlife, wilderness and environmental protection. These include 25,000 acres through exchanges with the State and 20,000 acres through exchanges with private owners. In addition, Interior has made the California Desert a high priority for Land and Water Conservation funds. For example, just last June we approved 1990 expenditures of $500,000 for acquisition of 2500 acres at Chuckwalla Bench and $1.2 million for 600 acres within the Desert Tortoise Natural Area. Both areas are important areas for the recently listed endangered desert tortoise.

WILDERNESS

S. 11 states that the wilderness values of these lands are increasingly threatened and especially vulnerable to impairment. It is not an accurate statement of what is occurring in the CDCA under the California Desert Plan. Recognizing that wilderness is one of the important multiple uses of the California Desert, the California Desert Plan established 6.3 million acres as wilderness study areas that had at least the minimum wilderness characteristics and warranted further study.

Extensive public involvement and over 50 public meetings were held as part of this process. It is significant that no appeals were filed challenging the identification of wilderness study areas.

Based on these studies, using a balanced approach to wilderness designation, approximately 2.1 million acres, or 33 percent, of the study acreage has been preliminarily recommended as suitable for designation as wilderness.

Without considering the study activities already undertaken, S. 11 proposes to designate as wilderness almost 100 percent of the study acreage, plus additional acreage not even studied.

We also point out that the Bureau of Mines and the Geological Survey have conducted the mineral studies required by FLPMA on the wilderness study areas in the CDCA. These surveys were completed on the 2.1 million acres BLM is recommending as suitable for designation as wilderness. Mineral assessments and evaluations have not been conducted by these agencies for any of the additional 6.3 million acres which S. 11 proposes be added to the National Wilderness Preservation System or the National Park System. Congress has previously indicated that such a review is necessary before considering withdrawal of public lands from future exploration. We believe that inclusion of that additional acreage in the National Wilderness Preservation System without knowing or documenting the mineral potential of the area would not be in the public interest. Many areas were deleted because of their known high mineral potential.

Furthermore, BLM has been managing and will continue to manage wilderness study areas under specific Congressional direction pending final Congressional decisions on wilderness designation. Existing and certain new uses are allowed by law in wilderness study areas, but Congress has also stated that the wilderness values could not be "impaired." This means that permitted activities must not cause any significant impact, except those that can be removed or made substantially unnoticeable. BLM has closely adhered to these standards. All proposed activities have been carefully analyzed to consider their environmental impacts. Uses that would violate the nonimpairment standard have been denied. Those that have been allowed are required to follow strict mitigation and reclamation standards. In addition, areas are closely monitored for unauthorized uses. Where these occur, BLM quickly responds by investigating who is responsible, issuing citations, and obtaining prompt reclamation.

The wilderness study process currently being followed should be permitted to continue. Public land users are included in the process, and resource values are being fully and fairly analyzed. Wilderness values are being protected in accordance with section 603(c) of FLPMA.

Additionally, lands which would become wilderness if S. 11 is enacted, but which are not presently designated as BLM wilderness study areas, have generally been classified under the Limited Multiple-Use Class (Class L) in the Desert Plan to protect sensitive, natural, scenic, ecological, and cultural resources. These lands are managed for generally lower intensity and carefully controlled multiple use of the resources, while assuring that sensitive values are not diminished. In addition, there are 740,000 acres of Areas of Critical Environmental Concern which were designated under FLPMA and the Desert Plan to highlight areas with special resource values.

As I said, S. 11 would bypass these procedures and not recognize either the results of the wilderness study process or public input. Instead it would designate as wilderness almost all of the lands being studied for wilderness potential, as well as additional acreage that did not even qualify for study. This would have a significant detrimental effect on general public access for numerous recreation activities involving millions of users. In addition, these designations would limit certain future resource management options.

Finally, the question of any Federal reserved water rights in wilderness areas is not addressed in the bill. We believe this to be a serious oversight.

MINERALS

S. 11 does not address the potential loss of minerals in the lands proposed for transfer and withdrawal from entry or appropriation. Certain of these lands have a past history of mineral development for locatable minerals and presently have favorable potential for future discovery of locatable, leasable and saleable mineral deposits, in addition to potential for strategic and energy-related mineral resources.

Statements have been made that the major mineral commodities now being produced in the California Desert are sand and gravel, and that there is little remaining commercially valuable mineralization in the California Desert Conservation Area. We strongly disagree.

Although sand and gravel are still important mineral commodities in the Desert, especially considering the growth in the Southern California area, the CDCA contains a wealth of other minerals as well. Even though much of the area has not been fully explored, the CDCA is one of the most diverse geologic regions and mineralized areas of the United States. It contains known occurrences of over 65 mineral commodities; 27 of these are considered strategic and critical to our Nation's needs. In many of these commodities, the current demand is so high that we must now depend on foreign sources to satisfy our needs. The inplace value of known mineral resources in the California Desert is currently estimated at a conservative $400 billion.

In 1986, approximately $1.1 billion worth of the $2.3 billion California nonfuel minerals came from the California Desert. Minerals found and produced in the California Desert include 100 percent of the Nation's borates, 97 percent of the domestic rare earths, 15 percent of the talc, 10 percent of the crude gypsum, and 6 percent of the metallic minerals.

S. 11 does not consider the enormous potential loss of minerals that are critical to the security of the nation. Of special importance are the rare earth deposits. The source of almost all this Nation's current production, and half of the free world's production, is located in the Mountain Pass area adjacent to the proposed Mojave National Park. This is of great concern to us because of the tremendous interest shown recently in the rapid advancements in superconductor technology. The United States could achieve significant advantages in global economic competitiveness by both developing and marketing effective uses of this technology. An important discovery in superconductivity has been the use of the chemical elements lanthanum and yttrium, which are mined from these rare earth mineral deposits and make high temperature superconductors feasible. Rare earths have other high technology applications, such as x-ray phosphors which allow clearer images to be formed from smaller doses of x-rays, and crystals for lasers.

Areas with similar environments favorable for finding these critical rare earth mineral deposits exist elsewhere in the CDCA. For example, during mineral studies performed by the Bureau of Mines, a new rare earth discovery was made in the Pinto Mountains Wilderness Study Area. This area is located on the northern boundary of Joshua Tree National Mounment and would be included in the proposed park expansion area under S. 11. We cannot afford to limit or prevent the future development of these materials by putting them in a national park. Other such deposits are now unavailable to the United States because they were included in units of the wilderness system. The only other known economic deposits of rare earths in the United States are placer deposits located in central Idaho. In 1972, these deposits were incorporated into the National Wilderness Preservation System as the Sawtooth Wilderness and the lands were withdrawn from mineral entry, thus precluding them from mineral development.

Mineral commodities in the CDCA are of major economic significance to the local economy, and several are critical to the national domestic economy. These commodities support local industries that employ thousands of people in Southern California, generate millions of dollars in wages and taxes, and support other industries, such as construction and agriculture. Among others, these commodities include oil and gas, zeolites, and specialty clays used in energy, pollution control systems, chemical refining, ceramics, drill muds, and specialized chemical research.

Gold is another important mineral in the Desert. Annual production of gold has accelerated immensely, from less than 5,000 ounces 5 years ago to a projected 400,000 ounces this year. At today's prices of gold, about $370 an ounce, the gross value of this production is about $148 million per year.

Geothermal energy is also of immense importance with significant exploration activity occurring within the CDCA. As an example, Imperial Valley, which includes nine Known Geothermal Resource Areas, is second only to the Geysers geothermal area in Northern California in geothermal energy production in the United States. Also of critical importance is the Coso Known Geothermal Resource Area located on BLM public lands and withdrawn lands administered by the China Lake Naval Weapons Center. It is assumed to be the third most significant geothermal field in the western United States. There is high potential for additional geothermal resources in other parts of the Desert.

Of approximately 153,000 unpatented mining claims of record for locatable minerals in the State of California, 90,000 are located within the CDCA. Since 1980, over 1400 mining and exploration proposals under the 1872 Mining Law have been reviewed by BLM. Interest in exploration remains strong. Limestone and carbon dioxide also contribute to the mineral wealth of the Desert. Other commodities such as lithium, uranium, kyanite, and sodium carbonate are present and exploration activities are widespread.

There is some interest in oil and gas development in the Desert. Approximately 150 leases covering 265,000 acres have been drilled. Oil and gas potential will remain unknown until adequate exploration takes place. Lessees now pay the United States $265,000 in rentals per year.

Because of this extensive mineralization, public lands in the Desert, except for those areas that would be designated as wilderness under the Desert Plan recommendations, should be left open for mineral exploration to assure sound local and regional economies as well as national security. The 33 percent of wilderness study area acreage currently determined as suitable by BLM for inclusion in the National Wilderness Preservation System includes lands of the highest wilderness values. The BLM recommendations also recognize known mineralization and exclude some areas for this reason. Many mineral professionals and experts believe that the 2.1 million acres in the Desert proposed by BLM for wilderness designation also possess significant mineral resources, but they accepted the fact that many trade-offs had to be made during the Plan preparation in order to achieve a balance of resource allocation.

Even as I note mineral values, it is important to recognize the dynamic nature of mineral surveys and commodities. This dilemma is best expressed by a former Director of the U.S. Geological Survey, the late Dr. Vincent McKelvey, who said, "Appraising mineral resources is an emerging science. A final, once and for all inventory of any mineral resource is nonsense. Mineral reserves and resources are dynamic quantities and must constantly be appraised. As known deposits are exhausted, unknown deposits are discovered, new extractive technologies and new uses are developed, and new knowledge indicates new areas and new environments favorable for mineral exploration."

As I stated, S. 11 simply incorporates almost all lands presently under wilderness study and ignores minerals data developed in the inventory and planning process. S. 11 does not recognize the tremendous variety of minerals in the Desert whose uses are yet to be determined.

WILDLIFE

The status of wildlife in the Desert and the desert tortoise in particular has been the subject of much discussion. A recent General Accounting Office (GAO) report criticized BLM's management of wildlife in this important area. In an unrelated step, the Department of the Interior, using data from BLM test plots and analysis, has listed the desert tortoise as threatened on an emergency basis.

Unfortunately, the GAO report requested by Senator Cranston focuses not on the many significant wildlife achievements on public lands in the Desert by BLM and the cooperative efforts of State, Federal and local agencies and private groups, but on the narrow issue of completion of wildlife activity plans. While such plans are important, they are only one aspect of BLM's broad wildlife effort in the California Desert.

By focusing on wildlife activity plans, the report fails to recognize that significant wildlife management has been and is being performed in addition to the implementation of activity plans. Even in the case of the plans, the report cites misleading statistics and presents opinions of unidentified individuals as statements of fact.

Perhaps even more disturbing is that GAO also questions BLM's commitment to wildlife. As I will describe to you, BLM is strongly committed to wildlife. We have done a good job in the Desert and our record clearly shows it. In addition, the new Director of BLM, Cy Jamison has made wildlife one of the agency's top priorities.

It is worth noting that BLM is responsible for more wildlife habitat than the Forest Service and the National Park Service combined. We take this responsibility very seriously, and this commitment is evident in the California Desert.

That commitment has been clearly demonstrated by the support given us by outside groups. These groups, including the Nature Conservancy, the Trust for Public Lands, and the California Department of Fish and Game, among others, have invested millions of dollars in habitat improvement projects on the public lands. This would not have been done if these organizations did not trust BLM's commitment to wildlife.

To show our commitment to wildlife, I will describe BLM's efforts on behalf of just a few of the many species under our care in the California Desert.

BIGHORN SHEEP

Under BLM management, the population of the majestic desert bighorn sheep has increased by more than 40% over the last nine years, going from 3,000 to

4,600. Most of the work that led to this increase was accomplished by projects implemented largely outside of the wildlife activity planning that was the focus of the GAO report.

A few examples of this important work included:

- Removal of more that 20,000 excess burros throughout the Desert that were threatening bighorn watering holes and habitat;

- Development of 45 big game guzzlers that have increased useable range. Many of these guzzlers have been funded by BLM and installed in cooperation with the California Department of Fish and Game and volunteer groups;

- Establishment of three herds on BLM lands in the California Desert Conservation Area since 1980. At least two ranges on BLM lands now have large enough herds to serve as source stock for other transplants; and

- BLM contribution of funds into disease research efforts and recent transfer of title to valuable land near Palm Desert for the private Bighorn Research Institute.

The GAO report noted none of these accomplishments, but instead focused its criticism on one population of bighorn in the Santa Rosa Mountains which is in decline because of disease. It also failed to note that BLM has a cooperative management plan underway in this area and that we permit no livestock grazing. In addition, it failed to note that there have been two catastrophic fires on the range in the past 8 years, which may have led to spreading of the disease by driving sheep into concentrated herds on the remaining habitat.

Another example of the report's lack of impartiality was the charge that BLM allows competing interests to take precedence over wildlife interests when conflicts have arisen. I've already pointed out that in the case of bighorn sheep, BLM has eliminated livestock grazing in the Santa Rosas.

BLM has made other decisions on behalf of bighorn sheep. One example is the elimination of part of a grazing lease in the Clipper Mountains due to competition for forage.

FLAT-TAILED HORNED LIZARDS

BLM's positive approach to wildlife habitat is demonstrated in its handling of another species. It is sometimes hard to get the public excited about a species like the flat-tailed horned lizard. But it is a candidate for threatened status, and BLM has been at the forefront of research, inventory, and management of this species. All of this work went unmentioned by GAO.

BLM has contracted several studies and has conducted extensive surveys for many years in coordination with the California Department of Fish and Game. A comprehensive species management plan has recently been completed by BLM and is ready for signatures by cooperating agencies.

BLM has prepared management plans for two critical lizard areas, the East Mesa and Yuha Desert, and has designated a new Area of Critical Environmental Concern in the West Mesa to protect additional habitat for the species.

To illustrate the point I made earlier that BLM often finds it necessary to restrict development in favor of wildlife protection, BLM curtailed the eastward expansion of geothermal steam development on East Mesa, specifically to protect the lizard. Even in this area of extremely promising geothermal resources, BLM restricted the plant construction to an area right along the highway, confined all vehicular travel in the area, including our own patrol trucks, to a few designated, clearly marked routes, and put substantial constraints on exploration activities, all to protect the lizard's habitat.

COACHELLA VALLEY FRINGE-TOED LIZARD

I am also happy to report to the Subcommittee that another species, largely unknown but important to BLM, has made substantial progress in the Desert. The Coachella Valley fringe-toed lizard, an endangered species, now has a 14,000-acre preserve recently completed by BLM through a long series of land exchanges and acquisitions in cooperation with a number of other agencies and groups.

BLM recently acquired the last few remaining parcels in this preserve near Palm Springs. The preserve is a fine example of long-range, cooperative land use planning, where lands can be set aside for preservation of a small, but important species, while allowing critical urban expansion in other areas.

DESERT TORTOISE

The GAO Report deals with another species that is much more well known -- the desert tortoise, the official reptile of the State of California. I will specifically respond to some of the allegations in the GAO report concerning BLM's efforts on behalf of this wide-ranging species, but I think it's also important that the Subcommittee fully consider the impacts of the emergency and potential permanent listing of this species on the land use designations proposed by S. 11.

GAO focused on the desert tortoise as a prime example of what it perceived as BLM's failed wildlife program in the California Desert Conservation Area. This view is untrue and incorrect. It fails to acknowledge BLM's long history of concern for and recognition of the declining populations of the desert tortoise.

As our sister agency, the Fish and Wildlife Service, stated recently, "The BLM has been in the forefront of efforts to protect the species. BLM recently developed a rangewide plan aimed at protecting the tortoise and enhancing its habitat. The information BLM has already collected on the species will prove invaluable in this effort."

Our commitment to protecting the tortoise dates back many years. For example, in 1983, BLM, based on its own data, predicted state listing of the tortoise. In 1987 BLM published its Rangewide Plan, and in 1988 BLM issued a series of recommendations for coordinating governmental actions to protect the species. BLM has sought and received substantial funding from the California Department of Transportation, California Energy Commission, and others for tortoise research and management efforts.

The primary management issue at this point is the drastic declines in many areas caused by disease introduced by captive tortoises and by heavy raven predation of juvenile tortoises. BLM has been, and continues to be, aggressive in addressing these issues, even in the face of strong opposition from some groups and legal action brought against us by the Humane Society regarding our plan to eradicate certain populations of ravens.

Just last month BLM took the unprecedented step of imposing an emergency quarantine of 38,000 acres in the Desert Tortoise Natural Area and Western Rand Mountain Area of Critical Environmental Concern. Additional restrictions limiting vehicles to designated routes were necessary in an adjoining area.

We understand the concern this has raised with off-highway vehicle, livestock, and other groups. However, we felt it was absolutely necessary for a year's quarantine to allow critical research efforts to be conducted without the additional stress of human activity on the species.

All these past and current activities clearly demonstrate that BLM fully recognizes and is prepared to carry out its responsibilities regarding the desert tortoise.

The irony is that putting so much of the Desert off-limits to uses such as off-highway vehicles and mining would only concentrate human activity in the remaining tortoise habitat areas that are now experiencing a great deal of the serious population declines.

I regret that we don't yet have the answers for how we can help the tortoise. But we do know that all actions that would tend to aggravate the situation should be carefully evaluated before any decisions -- either legislative or executive -- are made.

RECREATION AND VEHICLE USE

Visitors spend more than 21 million visitor days a year in the Desert, making it one of the most popular recreation areas in the United States. The variety of recreation uses and opportunities is tremendous. They include hiking, hunting, camping, rockhounding, bicycling, land sailing, sightseeing, and off-highway vehicle (OHV) use.

The Desert Plan process identified off-highway vehicle recreation as a key issue and one which polarizes many groups. Some OHV activities, such as dune buggy play on a sand dune area, are very intense. Other activities are as benign as driving a car or pickup on an old, two-track road in the Desert.

Vehicle use in the Desert is important both for simple transportation and for recreational use. S. 11 would severely, and unnecessarily, restrict both uses. The bill fails to recognize that, in the Desert, most visitors and residents are off-highway vehicle users at one time or another. Closing many miles of key access routes, as the bill would do, would adversely affect motor vehicle recreation and basic access to the Desert.

It has been said that BLM does not adequately control vehicle use in the Desert. This is simply not true. For a long time BLM has been committed to proper management of OHVs. This commitment can be traced back to the late 1960's when BLM recognized OHV use as a major Desert issue needing immediate attention. In 1973, in response to ever-increasing vehicle use, BLM developed and implemented the Interim Critical Management Plan to manage vehicle access. This system was largely integrated into the 1980 Desert Plan, when the route designation process became a key element in managing this use. To date, all of the Desert has been examined in the vehicle route designation process. Under this process, specific access routes within sensitive areas are established, signs are posted designating mode of operation permitted, followed by on-the-ground enforcement. There has been extensive public involvement in these efforts.

Public education and awareness of proper use of the Desert are also critical elements in vehicle control. Recreation and interpretive specialists, mobile interpretive trailers, brochures, and audiovisual aids are used to assure public education and awareness. In addition, the importance of law enforcement is recognized and it is a high BLM priority. BLM desert rangers, who now number nearly 50 in the California Desert, have issued nearly 1,600 citations in the past year alone, most to OHV users for violations of rules and regulations.

Effective use and management of special areas have prevented expansion and proliferation of OHV uses outside of these designated areas, minimizing impacts on other areas of the CDCA. For example, BLM categorized certain OHV activities, such as OHV play, and designated about 500,000 acres as "open" for all kinds of OHV use. Covering about 4 percent of BLM lands in the Desert, these open areas have received intense vehicle use for many years and have boundaries which are easily recognizable for management of the activity.

It is important to note that even in these areas, impacts from such use have not been significant. A 1988 study by a San Diego State University Professor in 8 of the most heavily used OHV areas, covering 300,000 acres, found that only 2,700 acres, or less than 1 percent, had been impacted by such use.

Detailed management plans have been prepared for several areas and others are being prepared to help alleviate conflicts within and adjacent to open areas. The management plans provide for acquisition or exchange of private lands; cooperative use agreements with private landowners to reduce impacts on private lands; protection and mitigation for sensitive resources where practical; and identification of staging areas and other controls on use to improve safety and guide distribution of vehicles.

Priority for the route designation process was given to areas classified in the Limited Multiple Use Class, which covers about 49 percent of the Desert. Lands in this class, many of which adjoin both Death Valley and Jouhua Tree National Monuments and comprise most of the East Mojave National Scenic Area, are managed to protect sensitive natural, scenic, ecological, and cultural resource values by providing for lower-intensity, carefully controlled multiple use of resources. S. 11 does not acknowledge this balanced approach being used by BLM. Overall, S. 11 removes the diversity of recreation opportunity that was carefully provided for in the CDCA plan.

GRAZING

Grazing has been a longstanding, historical use of some public lands in the Desert, dating back to the last century. Through proper management under the Desert Plan, current grazing use actually helps maintain the environmental balance in selected areas.

S. 11 would affect this traditional grazing use substantially. Of the 79,000 animal unit months authorized in the Plan, about 55 percent would be eliminated by S. 11. This radical reduction would do little to change the vegetative composition of the Desert, but would have economic impacts on communities in the Desert which rely on the livestock industry as one of their revenue sources.

WILD BURROS

A major accomplishment of the California Desert Plan has been the reduction of wild burro overpopulations which have damaged Desert resources. BLM has removed and placed through adoption 20,000 wild burros over the past 6 years. We are now reaching our optimum herd levels for these areas.

S. 11 would eliminate four herd management areas and result in removal of about 530 burros. These herds, located within the Death Valley expansion and the proposed Mojave National Park would be under the jurisdiction of the National Park Service. The burros date back to the old mining days before the turn of the century but it is Park Service policy to remove populations of wild burros because they are not native animals. BLM's policy of managing burros at optimum herd levels would maintain the four herds, containing almost half of the total population of the animals in California, in their existing location in accordance with the mandates of the Wild Free-Roaming Horses and Burros Act of 1971.

DEATH VALLEY

We are opposed to sections 201 through 203 of S. 11, which would substantially enlarge the existing 2 million-acre Death Valley National Monument by adding 1.5 million acres of contiguous public lands, and would designate the area as a national park. Enlargement of the monument boundaries would have an adverse impact on carefully balanced mineral, livestock, and recreational uses of the Desert.

Because the Desert Plan was thoroughly coordinated with other Federal agencies, we question the advisability of any proposals or actions that would greatly increase the costs of managing lands and significantly impact uses of public lands contiguous to the proposed park lands. It should be emphasized that the present 2 million-acre National Monument is adequate to protect Death Valley as a representative example of the Mojave Desert. The proposed enlargement does not add any different features, but does eliminate many opportunities for other uses of the lands by millions of people.

Furthermore, section 205 of S. 11 does not address the potential loss of minerals in the lands proposed for transfer and withdrawal from entry or appropriation or leasing activities. Certain of these lands have a history of mineral development for locatable minerals and indicate potential for future discovery of locatable mineral deposits, which may include strategic and energy-related mineral resources. The bill is not clear as to whether the lands would also be withdrawn from operation of the Materials Act of 1947, as amended.

JOSHUA TREE

For similar reasons, we also oppose sections 301 through 303 of S. 11, to enlarge the existing 560,000-acre Joshua Tree National Monument by the addition of 245,000 acres of contiguous public lands. In addition, an important issue in our opposition is manageability. The expansion would include areas outside the recognized ecological boundary of the Monument, which are both inappropriate and would cause management problems for the Park Service. These lands are of value to diverse groups who benefit from using them as other than parks and wilderness. The Monument presently encompasses 560,000 acres and provides representation of both the Mojave and Colorado Desert ecosystems. In addition, the State of California has more than a half-million acres set aside in the Colorado Desert ecosystem within Anza-Borrego Desert State Park.

PROPOSED MOJAVE NATIONAL PARK

We strongly object to sections 401 through 406 of S. 11, which would establish the 1.5 million-acre Mojave National Park.

It would require the transfer of 1.29 million acres of public lands from BLM to the National Park Service and would abolish the present East Mojave National Scenic Area administered by BLM. The California Desert Plan designated the East Mojave National Scenic Area and began appropriate planning for the protection and management of the natural scenic beauty of the 1.29 million acres, while retaining the historic uses of the land such as mining, grazing, and recreation. With extensive public involvement, BLM prepared the East Mojave National Scenic Area Management Philosophy Statement that was completed in August 1981. The National Park Service concurred in the Scenic Area designation because the area did not have the qualities needed to designate it as a national park and also because it contained many uses incompatible with a national park, such as interstate pipelines, powerlines, and a railroad. We object to a proposal for a major new national park that does not meet the standards established for new NPS areas.

Furthermore, in 1988 BLM completed, with the public's help, an intensive site specific management plan for the East Mojave. The plan calls for enhanced protection, including withdrawal of 90,000 acres from the mining laws, reclassifying 120,000 acres from Class M (moderate use) to Class L (limited use), and substantial investments in visitor facilities and staffing. The Scenic Area is now managed to protect defined scenic, natural, cultural, historical, and recreational resource values and yet allow for other resource uses such as grazing, mining, and vehicle use. For example, hunting and wildlife management are major activities in the East Mojave that would be eliminated under S. 11. The East Mojave provides some of the best opportunities in San Bernardino County for hunting deer and upland game. Additional development of sources of water and habitat improvements to benefit wildlife, made in cooperation with the California Department of Fish and Game, would be adversely impacted. Progress in such programs as reintroduction of bighorn sheep also could be adversely affected. This effort has been very successful.

Protection is now provided by BLM under the National Scenic Area designation, using the basic protection philosophy outlined in the Desert Plan. Costs of this protection are considerably less than what would be incurred by the National Park Service if the area were designated a national park.

We emphasize that the area's scenic values are being protected under BLM management. The very values the bill seeks to protect are recognized by our preliminary recommendation of wilderness designation for seven areas, and protection measures incorporated in our 1988 management plan, including 90,000 acres of mineral withdrawals. In an ongoing effort to make the public more aware of the scenic and other resource values of the scenic area, an overlook was established near the Cima Road off ramp of Interstate 15 during October 1986. Many of the current uses, such as hunting, ranching and rock hounding are part of the scenic area experience and would not be permitted if the region became a national park.

Organizationally, BLM has over 30 employees in the Needles Resource Area to manage the East Mojave National Scenic Area, including a full-time coordinator for the scenic area. Effective enforcement and resource protection are also provided through the use of 7 ranger personnel. Additionally, there are approximately 7 operational employees from the BLM California Desert District Office working regularly in the East Mojave National Scenic Area.

BLM has done a good job in managing this area by providing the necessary protection and development mandated by Congress and the Desert Plan. National park status would result in considerable additional Federal costs with very little real benefit to the resource. Moreover, budget restrictions could have a strong negative impact on the creation of a new Mojave National Park.

This area is also highly mineralized and many mining claims have been worked over many decades. More than 10,000 mining claims exist within the proposed park. There are currently 3 active gold mines in the East Mojave National Scenic Area producing approximately 120,000 ounces annually, almost one-quarter of the Desert's production.

As we noted, S. 11, in general, does not address the potential loss of minerals that are critical to the security of the Nation. The CDCA and the East Mojave National Scenic Area, in particular, are highly mineralized, with potential deposits of sodium, potassium, known deposits of strategic minerals, and rare earths. Such lands should not be closed to exploratory activities or current mining without significant study and evaluation of the effects of a closure.

Section 410, by terminating grazing permits at the expiration of current terms, would phase out 37,216 animal-unit months of forage consumption on 10 allotments and eliminate 8 livestock operations in the proposed Mojave National Park.

Since National Park Service policy generally does not allow livestock grazing within national parks or monuments, expansion of Death Valley could have a similar impact. Grazing is currently being managed in accordance with ecological principles and the Desert Plan. The vegetative resources are not being damaged. S. 11 would effectively eliminate a use which is not causing harm. Livestock grazing permittees and lessees should be allowed to continue grazing livestock on these lands.

Section 411 of S. 11 would not terminate existing utility rights-of-way, but new rights-of-way would not be allowed. Millions of people in California's Central Valley and along the coast in such cities as Los Angeles and San Diego could be affected. The bill, as drafted, also would not protect validly issued rights-of-way for roads, water pipelines, or other uses, unless referenced on the February 1986 map.

The energy needs of California are enormous. Currently, there are a number of electrical generating and transmission projects under active consideration that would result in the need for transportation through the California Desert Area. Currently, in conjunction with the Federal Energy Regulatory Commission, we are considering three other gas projects. All three proposed routes would pass through the California Desert. S. 11 would restrict the ability to accommodate these needs.

Based on a preliminary evaluation of the areas to be designated by S. 11, its enactment would limit transportation and utility areas in five corridors. North of Death Valley, the corridor would be restricted to the area of US Highway 6 and 395, an area already heavily occupied. This route would also be highly constrained in the narrow area between the Navy's China Lake facility and the proposed wilderness area immediately west of US 395.

Between Death Valley and the proposed Mojave National Park, the corridor along I-15 would be very constricted near Baker, California, and at the

California-Nevada border. Although the conditions in the bill for the Mojave National Park provide for the continuation of existing electrical, oil and gas, and communication lines, new or upgraded facilities would not be permitted. Designations south of the proposed Mojave National Park along I-40 would be constricted in the area near Fenner, California. This is currently a heavily used corridor. The corridor along I-10 between Blyth, California, and Indio, California, is highly restricted at the southeast end of Joshua Tree National Monument and would probably prohibit the addition of any significant new transportation facility.

At the southern end of the Desert, the corridor would be very restricted at the San Diego - Imperial County line. A very tight constriction would occur between the Anza-Borrego State Park and the proposed "Jacumba Wilderness Area." This could force future routings north along the Salton Sea and through the San Gorgonio Pass (between Palm Springs and Beaumont), an already heavily impacted corridor area.

Transportation and utility needs do not seem to have been given the careful consideration needed in the formulation of S. 11. This is a major concern with the bill.

PLANNING AND CONSTRUCTION

Section 412 of S. 11 would require preparation and submission of a management plan within 3 years for the Mojave National Park. As we have indicated, this is completely unnecessary because the California Desert Plan is already in effect, and a detailed management plan for the East Mojave National Scenic Area has been completed. Basic data have been collected, and requiring three more years of "preparation" and the expenditure of additional funds and staff is neither efficient nor cost-effective.

Construction of a new visitor center, as authorized by section 414, is not appropriate during this period of budget austerity. In addition, the current BLM planning effort in this area has also considered Kelso Depot for public values. The Bureau is currently completing feasibility studies to assess whether the building can be renovated economically. Union Pacific Railroad, which owns the depot, has agreed to deed the building to BLM. The BLM has been working closely with the user groups and, if acquisition occurs, would utilize the Depot as an information and visitor center for the East Mojave National Scenic Area.

LAND ACQUISITION

Acquisition of lands, as specified in section 415 of S. 11, could also be better accomplished by retaining the lands under BLM administration and management. Needed properties could be acquired by exchange. BLM has an exchange program in the East Mojave National Scenic Area. For example, in an exchange completed in 1981, BLM acquired over 8,000 acres, and in a current exchange with Santa Fe Pacific Realty Company, BLM would acquire an additional 15,825 acres. Similarly, BLM has an agreement with the State Lands Commission to exchange public land for State land within the area. The first portion of the State exchange is scheduled for completion this fall. The East Mojave National Scenic Area is currently BLM's highest priority in California for use of Land and Water Conservation Fund monies for acquiring critical pieces of those private lands. Creation of a national park is not required to accomplish the goal of consolidating lands of high public values in the scenic area.

In addition to State and private lands located in the Scenic Area, substantial acreages of non-Federal lands are situated within the boundaries of other national parks and wilderness areas proposed in S. 11. Enactment of this bill could result in substantial acquisition costs to purchase or exchange these non-Federal lands.

OTHER SPECIAL AREAS

Section 601, which would transfer 20,500 acres from BLM to the California State Park System for inclusion in Red Rock Canyon State Park, is unnecessary. In fact, after several years of cooperative effort with the State of California Park System, BLM just last month transferred the lands sought by State park officials to round out the State Park. This amounted to 4,200 acres which was delayed only by problems arising from the National Wildlife Federation lawsuit.

Section 602 would establish a 2,040-acre BLM Desert Lily Sanctuary. We do not object to establishment of a sanctuary, but point out that the area already is receiving adequate protection. BLM closed the area to vehicle use in 1973, and subsequently withdrew it from mineral entry. The area, therefore, is not threatened in any way and we see no need for such a special management designation.

As to section 603 of S. 11, regarding the proposed Indian Canyons National Historic Site, we cannot support this designation. The area in question is located in and around Palm Springs, California. There are a number of problems with this provision. First, the land itself is owned by 5 individual Indian allottees, and this provision speaks only of dealing with the Agua Caliente tribe. Thus, property interests reside in individuals who would have to be compensated, and compensating only the tribe would be inadequate. Second, of the 440 acres held in trust by the United States for these allottees, 60 acres are being sold on a deferred payment basis. This is not considered in the bill. Third, much of the land is leased and is extremely valuable due to its proximity to expensive areas in Palm Springs. A very preliminary estimate of the land's value is approximately $10 million without water rights. In addition to the value of the land, any appraisal would have to include the value of the leases, estimated to be over $20.5 million alone. The cost of acquiring this land for the historic site, therefore, would be prohibitive for the Federal Government and cannot be justified given the current usage. Furthermore, negotiating a price would put this Department in a very difficult position. On the one hand, we have an obligation, through the Bureau of Indian Affairs, to help the Indians maximize their return on the land; yet we would have to pursue acquisition of the land at the lowest price to the Government. This is further complicated because there appears to be no realistic source of comparable Federal land for exchange with the tribe or with the allottees. Other lands would have to be located outside the present reservation boundaries.

Section 605 of S. 11 would direct the Secretary to exchange such public lands or interests of approximately equal value and selected by the State of California for any lands or interests located within the boundaries of the wilderness or parks. Within 6 months from the date of enactment of S. 11 the Secretary must notify the chairman of the State Lands Commission what State lands or interests are included within wilderness or park units. It would be the sense of the Congress that transfer of title to the State of California should be completed within 2 years of enactment. This would significantly reduce the remaining BLM lands not designated wilderness or parks which are available for multiple use including critical habitat for desert tortoises. The time provisions in the section are too short for adequate consideration of those issues where some discretion remains, such as identification of public lands that are available for exchange. The Secretary would have only 6 months in which to submit a list of all public lands within the State that are available for exchange with the State. It is not clear whether the lands identified would have to be identified also under FLPMA planning requirements. If so, the requirements for public input for plan amendments could not be met within the 6-month time requirement of the bill. In addition, third-party rights, such as mining claims, would have to be cleared in many instances, and the 2-year notices to grazing lessees and permittees required by section 402(g) of FLPMA would have to be issued before available public lands could be identified, to meet the 2-year exchange completion date.

Section 606, Mineral Exchange, authorizes the exchange of private mineral interests for Federal minerals elsewhere in the State of California within a 3-year period. Exchanges must be made for equal value. Determination of fair market value is based on mineral surveys of each tract involved in the exchange. One result of these surveys is an estimate of the number of undiscovered mineral deposits and their probable grade and tonnage. Mineral surveys on wilderness areas normally take 3 years from initiation to publication of the results. It is not reasonable to expect that exchanges could take place within 3 years when the mineral inventories for most areas would be unknown. Additionally, because the California Desert is such a mineral-rich area, it may be that there is not enough value on mineral lands owned by the Federal Government elsewhere in California to effect an exchange.

MILITARY ACTIVITIES

Title VII of S. 11 would deal with military activities, including such matters as overflight, land withdrawal, land management, decontamination, hunting and fishing, and immunity of the United States.

We would support separate legislation to withdraw the China Lake and Chocolate Mountain Ranges if the following concerns are addressed.

1. Section 703 (b)(2) would provide that the Chocolate Mountain Range would be comprised of 227,369 acres.

We recommend that the acreage be established at 226,729 acres to be consistent with the minor boundary adjustment that the Navy has made to exclude 640 acres located in the northern half of Sections 5 and 6, T. 13 S., R. 19 E., San Bernardino Meridian. The Navy's action was made to accommodate a mining operation in the area.

2. Section 705(b)(3) would require the Secretary of the Interior to keep appropriate warning notices posted and take appropriate steps to notify the public concerning any closure of the withdrawn lands to public use.

We recommend that the bill be amended to make this the responsibility of the Secretary of the Navy. Closures change depending on the sensitivity and the degree of hazard of the military activities. The Secretary of the Navy is in a better position to carry out this task.

3. Section 705(c)(4) would require that a management plan for each withdrawn area be completed within 3 years after enactment of this title.

We recommend that the time period be changed to 5 years. A 5-year period would allow for a more thorough and professional product. Our experience since enactment of the Federal Land Policy and Management Act has been that 5 years are generally necessary to authorize, program and schedule planning activities.

4. Section 705(g)(1) would authorize the Secretary of the Interior to assign the management responsibilities and preparation of the management plan for China Lake to the Secretary of the Navy.

We recommend that the authority to assign management responsibilities also be made applicable to Chocolate Mountain. Much of the Chocolate Mountain Aerial Gunnery Range is apparently heavily contaminated, and any surface or subsurface use or occupancy would be hazardous. Given this situation, military management and plan development of that portion of the withdrawn lands intensively used for military purposes would be preferable to BLM management and plan development of that portion of the range. Our recommendation would give BLM the needed flexibility to determine which lands withdrawn for Chocolate Mountain it should manage, recognizing that there are many circumstances under which it would be more desirable from BLM's standpoint to have the Navy manage at least part of the withdrawn lands.

5. We recommend that a provision be added to section 705 to address the management of wild horses and burros. We believe it would be appropriate for such management to be assigned to the Secretary of the Navy.

6. Section 706(a) of S. 11 would provide that the withdrawals established by this title would terminate in 15 years.

We recommend that the bill be amended to change the term of the withdrawal to 25 years. We firmly believe that 25 years is necessary for military withdrawals to allow for more efficient long-range planning and implementation.

7. Section 706(b) would require the Secretary of the Navy to publish a draft environmental impact statement concerning continued or renewed withdrawal of any portions of the lands withdrawn by this title.

We do not believe an environmental impact statement is necessary for existing, continuing military reservations. We believe that all that should be required should be an application by the Secretary of the Navy for extension of the withdrawal in accordance with the regulations and procedures of the Department of the Interior. The withdrawal would remain in effect pending processing of the application and a decision and action on the proposed withdrawals by the Secretary of the Interior and the Congress if the extension application is subject to section 2 of the Act of February 28, 1958. This process is far more efficient and cost effective than the procedures in S. 11.

8. Section 707 would require the Secretary of the Navy to maintain a decontamination program for lands withdrawn by this title to the extent funds are made available. This is an ongoing practice and should not be legislated except in connection with the appropriation of funds for that purpose.

9. Section 708(c) would provide for the Secretary of the Navy to decontaminate the land to the extent that funds are appropriated for such

purpose if the Secretary of the Navy determines that decontamination is practicable and economically feasible and that the decontaminated lands could be opened to the operation of the public land laws.

We recommend that this section be amended to provide for the Secretary of the Interior, in consultation with the Secretary of the Navy, to determine whether decontamination should be undertaken. This may have been what was intended in the bill since the language of this subsection is somewhat garbled.

We point out that neither section 707 nor 708 would supersede the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

10. We believe that the following additional provisions are essential and should be included in any legislation to withdraw the China Lake and Chocolate Mountain military installations.

(a) Provisions relating to mineral leasing and mining--

- The Secretary of the Interior, with the concurrence of the Secretary of the Navy should be required to determine which public and acquired lands covered by the withdrawals are considered suitable for opening to the operation of the Mining Law of 1872 and the Mineral Leasing Act for Acquired Lands of 1947, and the Material Sales Act. This determination should be required as soon as possible after enactment of a bill and at least every 5 years thereafter. The lands should automatically be open to the operation of such laws on the date specified by the Secretary in a notice published in the Federal Register.

- Minerals or materials identified in section 3 of the Act of July 23, 1955, whether or not included in the term "common varieties" in that Act should not be subject to location under the Mining Law of 1872 on lands comprising the China Lake and Chocolate Mountain withdrawals.

- The Secretary of the Interior, with the concurrence of the Secretary of the military department concerned, should be required to promulgate such regulations to implement this section as may be necessary to assure safe, uninterrupted, and unimpeded use of the lands for military purposes. The regulations should be required to contain guidelines to advise mining claimants of what environmental or other requirements would be required on lands opened under this section.

  - The Secretary of the Interior, at the request of the Secretary of the military department concerned, should be required to close any lands that have been opened to mining under the legislation in the event of a national emergency or for purposes of national defense or security.

  - In the event of a conflict between the withdrawal legislation and the mining laws, the former should prevail.

- All mining claims located under the terms of the withdrawal legislation should be subject to the provisions of the Federal Land Policy and Management Act of 1976 (FLPMA).

- Patents issued under this bill for locatable minerals should convey title to locatable minerals only, together with the right to use so much of the surface as may be necessary for mining purposes authorized under the bill but should reserve to the United States the surface of all lands patented and of all nonlocatable minerals on those lands.

(b) A provision relating to water rights--Title VII

We recommend adding a provision stating that the withdrawals established under the bill are not intended to reserve or otherwise withdraw any water for the uses identified in the bill, affect future appropriation under State law, by the United States or others, of water in, under, or upon the lands withdrawn by the bill or affect water rights acquired by the Navy or other components of the Department of Defense prior to enactment of the bill for use in connection with military operations at China Lake and Chocolate Mountain.

11. We recommend adding a section to repeal the law that originally withdrew China Lake and Chocolate Mountain and revoke several land orders relating to

the withdrawn areas. This would relieve BLM of having to propose additional legislation to clear the land records of obsolete withdrawals and take administrative action on obsolete public lands orders.

In addition, we have some technical amendments to Title VII which we will be happy to discuss with Subcommittee staff in the hope that this title can be enacted separately with the changes I have discussed.

SUMMARY

In summary, if enacted, S. 11 would override 13 years of work by citizens and groups who joined together in the belief that, by congressional direction, they were given the responsibility to develop a Desert Plan which would provide for balanced management of all resources within the Desert. They accomplished that goal by using a multiple use philosophy of management, use, protection and development. S. 11 substitutes the interests of a few special interest groups and organizations for the many who benefit from the well-balanced Desert planning and public involvement process.

Despite the allegations some proponents of S. 11 have included in their brochures and advertisements, BLM believes in wilderness. The President will be recommending to the Congress the desert areas the Administration feels will best contribute to the National Wilderness Preservation System. We believe in wildlife, cultural resources, and scenic protection as well. In short, we believe in the same things as do the proponents of S. 11. But we also believe in the importance of mining, motorized recreation activities, livestock grazing, and other uses, that when properly managed, do not harm the environment. The issue is one of balance, or how much of one use should be allowed as compared with another use. We believe that is the crux of this debate and one the Congress must ultimately decide.

S. 11 proposes boundary enlargements of NPS lands and adjustments to BLM lands that do not reflect sound on-the-ground management. We would ask the Committee to await the President's proposal for the management of the California Desert Area. One must keep in mind that we are following the exact procedures established in law by this very Committee. We would hope that when that proposal comes forward we would again have the opportunity to appear before this Committee.

We stand ready to work with you to ensure a proper balance is achieved and that our 14 years of planning and 9 years of implementation, with public involvement through the California Conservation Area Desert Plan, are not sacrificed.

Thank you for the opportunity to comment. I would be pleased to answer any questions you may have.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

SEP 29 1989

Honorable John Conyers, Jr.
Chairman, Committee on Government Operations
House of Representatives
Washington, DC 20515-2201

Dear Chairman Conyers:

This letter transmits our comments on the General Accounting Office (GAO) report entitled, Planned Wildlife Protection and Enhancement Objectives Not Achieved.

GAO's finding that the Bureau of Land Management (BLM) has not had adequate funding or staffing to fully meet the wildlife objectives set forth in the California Desert Land Use Plan should be tempered by the fact that the wildlife program must compete with other important endeavors for limited Federal dollars. In addition, the report fails to describe the wildlife accomplishments made by the Bureau in the California Desert and, therefore, does not accurately portray BLM's performance. The GAO's study focused almost entirely on the development and implementation of wildlife plans. Many wildlife-related activities were conducted outside the scope of these plans. We note some of these accomplishments in our detailed response to the report which is attached. We clearly recognize the importance of our efforts to complete the development and implementation of wildlife plans and agree with GAO's recommendation that this should be done as expeditiously as possible. BLM's California State Office has endeavored to do this with the funding and staffing available.

Recent BLM national activities further reflect BLM's commitment with respect to wildlife protection and enhancement. BLM has completed and is in the process of implementing Fish and Wildlife 2000, a strategic plan that outlines the direction of BLM's fish and wildlife program between now and the year 2000. BLM state offices, including California, are presently working on State Fish and Wildlife 2000 plans to outline the measures needed at the local level to achieve the Fish and Wildlife 2000 goals. As a part of that plan, specific funding and staffing needs will be identified for linking to the budget process. As a consequence, we anticipate even greater emphasis placed on fish and wildlife resource management in the California Desert.

BLM's new director, Cy Jamison, has clearly stated that top priority will be given to the Bureau's fish and wildlife program. As indicated during his confirmation hearing, he intends to increase the number of BLM fish and wildlife specialists. He also will work closely with the Administration and the Congress to enlist their support for BLM's expanded fish and wildlife initiatives and to carry out programs, such as outlined in the California Desert Plan.

We appreciate your interest and support of our activities in managing resources in the California Desert Conservation Area. We would be pleased to answer any questions you might have, or to provide additional information at your request. So that you might better understand that we have been implementing the wildlife provisions in the California Desert Plan as expediently as funds and staffing permits, enclosed is a Fish and Wildlife Program Status Report that provides further information on our fish and wildlife program.

Sincerely,

Deputy Assistant Secretary - Land and
Minerals Management

Enclosures

Bureau of Land Management Response
to the General Accounting Office Report
"California Desert - Planned Wildlife Protection and Enhancement Objectives Not Achieved"
dated June 1989

OVERVIEW

The General Accounting Office (GAO) finding that the Bureau of Land Management (BLM) has not had adequate funding or staffing to fully meet the wildlife objectives set forth in the California Desert Land Use Plan should be tempered by the fact that the wildlife program must compete with other important endeavors for limited Federal dollars. In addition, we find that the report does not properly characterize the wildlife protection accomplishments that have been made outside the scope of wildlife activity plans. While such activity plans are important, they are only one aspect of BLM's broad wildlife program in the California Desert. We think that GAO's failure to look beyond activity plans was shortsighted and the report presents only a partial picture of BLM's wildlife management activities in the California Desert Conservation Area (CDCA). This response and an attached BLM report, "Where the Wildlife Roam," more clearly describe the full spectrum of BLM's wildlife efforts in California.

We are concerned that GAO's report raises questions about BLM's commitment to wildlife. As we will describe in this response BLM is firmly dedicated to wildlife protection and enhancement. The significant accomplishments that BLM has made with limited resources are evidence of this commitment. Further evidence is the support provided by the Nature Conservancy, Trust for Public Lands, California Department of Fish and Game and others for habitat and other improvements on public lands. We believe that these organizations would not have invested millions of dollars had they questioned BLM's commitment to wildlife.

Without question, we believe we have made significant strides towards meeting the wildlife objectives of the California Desert Land Use Plan. We agree with GAO's recommendation that completion of plan development and implementation is needed to fully meet the objectives of the California Desert Land Use Plan and provide full protection for wildlife and other desert resources. BLM has the expertise and the commitment to see that it is accomplished and we are striving to meet this goal with the available funding and staffing.

GAO Finding: BLM has not produced the number of wildlife enhancement and protection plans called for in the California Desert Conservation Area (CDCA) Plan.

Response: We believe that the large number of plans that were completed with limited resources is a testament to the high caliber of professional wildlife biologists that have worked in the California Desert District. Many of the plans address several hundred thousand acres of habitat with complex issues.

Habitat Management Plans (HMP's) called for in the CDCA that have been prepared focus on the highest priority areas. Areas for which plans have not yet been developed are usually covered through the objectives of another activity plan, have ample protection under the California Desert Plan Land Use Guides and protective measures, or are in areas where there are no impacts or other activities occurring. Also, many general management activities are initiated even before site-specific plans are completed, e.g., ranger patrols, control of wild burros, access route designation, land acquisitions, etc.

Additional wildlife protection is afforded through the preparation and implmentation of Area of Critical Environmental Concern (ACEC) Plans. BLM has completed most of the plans for the 80 ACEC's in the Desert. Twenty-eight (28) of these ACEC's are wildlife related although wildlife biologists had input into the other planning efforts as well. Of the 28 wildlife ACEC's, plans for 25 have been completed. Certain of our planning accomplishments were not cited in the GAO report. For example, one wildlife biologist prepared three additional ACEC plans to protect rare plant forms (Barstow Woolly Sunflower, Upper Johnson Valley Yucca Rings, and Soggy Dry Lake Creosote Rings). In addition, one HMP not included in the CDCA Plan was prepared for the Sheep Hole Mountains prior to a bighorn sheep reintroduction and several ACEC plans being implemented were ignored or overlooked, as was the fact that wildlife biologists provided inputs into some 67 completed ACEC plans.

GAO Finding: Action items in completed plans were largely not implemented.

Response: The report gives specifics on examples of plans "not effectively implemented." There is, clearly, a limit to our ability to implement our plans given current funding and staffing levels. We have, however, accomplished considerably more than acknowledged by GAO in its report. In the Jawbone-Butterbredt area, route designation to control vehicle access has been put in effect, but as part of the recreation program. A full vehicle management program, including monitoring, is now being implemented. With respect to studies needed for the reintroduction of bighorn sheep the area is of low priority for bighorn reintroduction, and even the California Department of Fish and Game (CDF&G) would have us pursue other areas farther north, e.g., Argus.

In some cases, constraints caused by other considerations, such as wilderness, have affected our ability to implement plans. An example is the New York Mountains mentioned by GAO. Here, fire planning is currently being done as part of an overall BLM effort. Since the New York area is a Wilderness Study Area (WSA), prescribed fire in the pinyon could be interpreted as wilderness impairing and thus cannot be undertaken before final action by Congress. In other cases, such as the installation of big game guzzlers, neither BLM nor CDF&G has had the money to do the identified work.

Regarding BLM's monitoring of the Chuckwalla Bench area, the report indicates that monitoring was delayed a number of years; in fact, it was delayed only two years. The report also implies that this is a heavy public use area; it is not. Also, it has not been demonstrated that the disease present in the desert tortoise population in that area results from vehicle misuse and vandalism.

GAO Finding: BLM has not had sufficient funding and staffing to meet plan objectives.

Response: The description of funding and staffing reflects Congressional budget expenditures accurately. A minor correction is that only two, rather than three, of eight wildlife biologists are assigned to provide tortoise expertise.

GAO Finding: Commodity and recreation interests often take precedence over wildlife protection.

Response: The Desert Plan is unique in modern land use planning in this country and probably the world because of the magnitude of the area it encompasses (25 million acres) and the area's importance and complexity. In accordance with the fundamental mission of the Bureau, we strive to balance and provide for a wide variety of multiple uses and resource protections.

One such effort to balance or "trade-off" is pointed out in the GAO report. In order to provide a free-play area for off-highway vehicle use, a portion of Johnson Valley was designated as an open area because of historic use. This designation allowed BLM to direct free-play enthusiasts away from other, more critical tortoise habitats in the West Mojave Desert. The trade-off of the Johnson Valley area must be viewed in the context of a desert-wide program to control off-highway vehicle use, as well as desert wide management of tortoises. The report criticizes this choice, but does not acknowledge the benefits to other tortoise habitat areas.

The concept of open, "free play" areas was attacked in a lawsuit brought under both the Federal Land Policy and Management Act and Executive Order 11644 by the Sierra Club. BLM's planning effort was upheld as a proper balancing in both the District Court and by the 9th Circuit Court of Appeals. (Dove Springs was the specific area used in the suit, but the concept of allowing for this use was also legally justified.) The decision in the Desert Plan, which established Johnson and Stoddard Valley as open areas, was also based on proximity to users and the need to protect other equally important areas.

It should be noted that even in open areas, enthusiasts tend to concentrate their OHV use. A study performed by San Diego State University in 1988 showed less than 1% was disturbed out of 300,000 acres of open acreage studied.

In the one area where GAO seemed pleased with the outcome of conflict resolution, the Cachella Valley Fringe-toed Lizard Preserve, the report seems to miss the point. This area, an area entirely of land acquisition, was dedicated from the beginning to preservation so other lands in the valley could be developed. The report's misinterpretion of this area's purpose raises the issue of whether GAO expects BLM to manage most of the public lands as refuges or as multiple preserve use areas as Section 601 of the Federal Land Policy and Management Act requires.

The report does not address the positive impact on wildlife habitat due to other components of the Desert Plan. Because of guidelines and constraints built into the Desert Plan, utility proponents do not propose pipelines, transmission lines, fiber optic cables, etc. outside of approved CDCA Plan corridors because they understand that the proposals will not be approved. Similarly, off-highway vehicle races are not proposed for Class L (Limited Use) areas because of Desert Plan constraints. Livestock grazing allotments cover only about 40% of BLM lands in the CDCA even though ranchers report that forage is available in other places. For instance, BLM rejected a new livestock allotment proposal in the Inyo Mountains specifically because of wildlife and wilderness conflicts, and despite backing for the proposal by many local residents and the county government.

Also not mentioned in the report is the fact that on occasion other resources take a back seat to wildlife. Two such examples are elimination of part of a grazing lease in the Clipper Mountains because of competition for habitat with bighorn sheep and a decision intended to alleviate competition south of Interstate Highway 40. (The decision by BLM was upheld on appeal by an Administrative Law Judge, but has been appealed to the Interior Board of Land Appeals.)

With regard to mining plans, the Congress requires BLM to carry out the mandates of the 1872 mining law. This law provides individuals the right to mine as long as they do not unduly degrade the environment and meet all State and Federal environmental requirements. Within these legal constraints, BLM applies necessary and beneficial mitigation measures to mining plans. It must be noted that only a few mines in the Desert disturb more than 100 acres, with most mining operations affecting less than five acres each.

With respect to the Barstow to Las Vegas motorcycle race reauthorization, the report fails to cite relevant legal action before and after 1983. For example, the report did not acknowledge that the area and trail authorized is already impacted. In some areas the course follows roads and trails established for powerlines and pipelines and even loops through an area designated as an ORV open area in the CDCA Plan. The period from 1977 to 1980 was marked by court actions and protest use led by the Phantom Duck of the Desert. The Federal District Court in Los Angeles essentially told BLM that citizens have a right to protest, and, therefore, this unauthorized use could not be controlled by BLM. The Sierra Club, et. al., also sued BLM over the race's reestablishment and lost in both District Court and on appeal to the 9th Circuit Court.

GAO Finding: Desert tortoise populations are declining rapidly.

Response: GAO's report portrays an alleged lack of concern and initiative on behalf of the desert tortoise. We take issue with this perception. BLM has been at the forefront of tortoise research, inventory, and management for more than 10 years. The staff of the California Desert District BLM includes some of the foremost leaders in tortoise management. The BLM has also been at the forefront of monitoring and inventory; this fact is recognized by all agencies having management responsibility for the tortoise, including the U.S. Fish and Wildlife Service and the CDF&G. Only during a two-year period, when falling budgets precluded all contracting, was BLM unable to adequately perform monitoring of permanent trend plots (four per year on a four year cycle). Data from these trend plots have been the source of invaluable research data and the trend plot technique and others developed in the District now are the rangewide standard. Despite budget constraints, BLM acquired several hundred thousand dollars of contributions from Southern California Edison Company to conduct tortoise life history studies.

BLM has taken an extremely proactive stance in its management thrust. Both the Bureau's 1988 desert tortoise "Rangewide Plan," and the "Recommendations for Management of the Desert Tortoise in the California Desert," set aggressive strategies for tortoise conservation and management. GAO failed to acknowledge either of these documents and the aggressive initiatives underway as a result. BLM has made considerable progress, particularly in getting user involvement and cooperation to improve management of tortoise habitat. This has involved substantial monetary contributions from the California Department of Transportation, California Energy Commission, and others. In addition a better appreciation of the management situation by ORV, grazing and other interests has also been achieved.

The discovery of large reductions in populations due to disease led to the U.S. Fish and Wildlife Service's emergency listing of the tortoise as endangered. The U.S. Fish and Wildlife Service in July 1989 recognized BLM's achievements: "The BLM has been in the forefront of efforts to protect the species. BLM recently developed a rangewide plan aimed at protecting the tortoise and enhancing its habitat. The information BLM has already collected on the species will prove invaluable in this effort."

A primary management issue at this point is the drastic decline in many areas caused by disease and heavy predation by ravens on juvenile tortoises. As part of its ongoing commitment to tortoise management, BLM has taken the lead in disease investigations and in aggressively pursuing raven reduction programs, even in the face of legal challenges from humane associations.

BLM has made significant progress in acquiring critical tortoise habitat in the California Desert. The 1989 and 1990 budgets include more than $4 million in its acquisition money from the Land and Water Conservation Fund for the Chuckwalla Bench and Desert Tortoise Natural Area, both highly important tortoise habitat areas.

GAO's suggestion that tortoise decline on Chuckwalla Bench may be attributed to "Livestock grazing, ...urban and agricultural development, ... and corridors" is not supported by the facts. None of these uses even occurs on the Bench. In addition, throughout the tortoise ranges, BLM has no control over urban expansion or agricultural development, both of which occur entirely on private land.

In 1983, BLM-California established a manual which outlined policy and guidance for the conservation of state-listed plants and animals throughout the State. This manual predicted state listing of the desert tortoise, which at that time BLM felt was imminent.

GAO Finding: Other Species Also Adversely Affected

Response: GAO infers that other species have been adversely affected by BLM's ineffective performance. We would not deny that some species may, on occasion, be adversely affected when other uses are given priority in a particular area, but the same can be said when one species is given priority over another. The facts are that BLM has, within available funding and staffing, focused its management attention on the habitats of the highest priority species and steered other uses away from these areas to the maximum extent possible.

Further, GAO did not properly interpret some of the data. For example, the GAO report shows that the mojave squirrel is in decline. In fact, it is not. Work performed by BLM and summarized in the 1985 study cited by GAO indicates stable Mohave ground squirrel populations on public lands. BLM studies have also documented the species in new locations, thereby greatly expanding the known range. The evidence led BLM to request that the CDF&G consider delisting the species. No action has yet been taken because declines have occurred as private lands in the southwestern Mojave are developed for agriculture and urbanization.

Another example is the failure of the GAO report to point out that BLM is at the forefront of research, inventory, and management for the flat-tailed horned lizard (FTHL), which is a candidate for Federal listing. The BLM has, in fact, contracted several studies and conducted extensive surveys for many years in coordination with the CDF&G. A comprehensive species management plan also has been completed and is ready for signatures from cooperating agencies. In addition, BLM has prepared the management plans for the East Mesa (including Southern East Mesa ACEC) and Yuha Desert (including Yuha Desert ACEC) habitat areas for the FTHL and has designated a new ACEC in the West Mesa to protect additional habitat for the species. BLM also restricted the eastward expansion of geothermal steam development on East Mesa, specifically to protect FTHL habitats. This was done despite the interest in geothermal as an important alternate energy source. The species management plan now nearing completion is in addition to the planning efforts prescribed in the Desert Plan. These planning and monitoring efforts are examples of where BLM is often the lead agency in species management as well as habitat management. Yet GAO failed to acknowledge this fact.

The GAO report cites one population of bighorn sheep in the Santa Rosa Mountains which is in decline due to disease. The BLM has a cooperative management plan for this area and permits no livestock grazing on this area. Under a challenge cost share initiative, BLM has contributed a large amount of money to the Bighorn Sheep Institute which is studying diseases in this area. It should also be noted that there have been two catastrophic wild fires on the range in the past 8 years, which caused sheep to group on the remaining habitat, leading to the spreading of the disease within the herd. Obviously, these kinds of situations are not the result of BLM mismanagement.

It is disappointing to us that the GAO report does not reference areas of the desert where bighorn herds have increased significantly. The facts are that three herds have been established on BLM lands in the CDCA since 1980 (Whipple Mountains, Sheep Hole Mountains, Argus Range), and at least two ranges on BLM lands (Old Dad Peak and Marble Mountains) have large herds which have been the source stock of numerous transplants. The development of 45 big game guzzlers in the CDCA has further benefitted bighorn sheep by providing water, thus increasing useable range. Many of these big game guzzlers have been funded by BLM and installed in cooperation with the CDF&G and volunteer groups. It should be noted that the extensive program of big game guzzler development in the CDCA has been implemented largely outside of wildlife activity planning which was the focus of the GAO report. As a result of the partnership management efforts between BLM, CDFG, and other conservation organizations, bighorn sheep populations have increased from 3,000 in 1980 to 4,600 in 1989. This is an increase of more than 40%.

As the number of completed plans has increased the basic biological staff has not been able to fulfill monitoring requirements. Usually wildlife and habitat monitoring must occur at a critical time or season. Congressionally mandated requirements for timely response (within 30 days) for mining operational plans and heavy workloads in environmental assessment preparation have affected our ability to monitor at the required time. Beginning in 1989, with the increase in the number of rangers from 22 to 47, there has been a concerted effort to use this field presence to assist in monitoring desert use activities.

GAO Recommendation: BLM should take those steps necessary to complete required wildlife ACEC plans and HMPS and then implement the action items contained in them.

Response: As stated in the overview, BLM agrees that completion and implementation of plans is essential to fully meet the objectives of the California Desert land use plan. BLM's Director has identified the Bureau's fish and wildlife program as one of his top three priorities and it is the Bureau's intention to proceed as expeditiously as possible with completion and implementation of wildlife plans in the CDCA, as well as with implementation of the expanded wildlife initiatives identified in Fish and Wildlife 2000. The Director is fully committed to the Bureau's wildlife program and will give priority to the wildlife initiatives in the CDCA and in the F&W 2000. We very much appreciate the interest and concern of GAO and the Congress in this regard.

Bureau of Land Management Response to General Accounting Office Report on California Desert Wildlife

- The California Desert Conservation Area (CDCA) was established by the Federal Land Policy and Management Act (FLPMA) of 1976, which requires BLM to manage the public lands for balanced multiple use. This includes such diverse resources as recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural scenic, scientific and natural values.

- BLM is responsible for the management of nearly half, or 12.1 million acres, of the CDCA. The entire conservation area comprises 25 million acres.

- Public lands in the CDCA provide a diversity of habitat for more than 635 species of wildlife, including 13 threatened or endangered species.

- The report, *California Desert, Planned Wildlife Protection and Enhancement Objectives Not Achieved,* was prepared by the U.S. General Accounting Office in response to a request from Sen. Alan Cranston. Sen. Cranston requested the report to address whether wildlife interests are being appropriately considered during the planning process for the California Desert Conservation Area and the impact of federal management practices on wildlife conditions.

The Department of the Interior's Bureau of Land Management (BLM) has completed its analysis of a June 23, 1989, General Accounting Office (GAO) report titled, *California Desert, Planned Wildlife Protection and Enhancement Objectives Not Achieved,* (GAO/RCED-89-171). The following is a summary of GAO's findings and BLM's response.

Finding: Because of funding and staffing shortfalls, wildlife management plans called for in the California Desert Conservation Area (CDCA) Plan have not been fully developed or implemented.

Response: GAO's finding that BLM has not had adequate funding or staffing to fully meet the wildlife objectives set forth in the California Desert Land Use Plan does not reflect the fact that the wildlife program must compete with other important endeavors for limited Federal dollars. In addition, the report falls short in describing the wildlife accomplishments that have been made by BLM in the California Desert and, therefore, does not accurately portray BLM's performance. The GAO's study focused almost entirely on the development and implementation of wildlife plans. Many wildlife-related activities were conducted outside the scope of these plans. Some of these accomplishments are detailed in the next section

Finding: BLM has allowed competing interests to take precedence over wildlife interests.

Response: As to GAO's finding that commodity and recreation interests often take precedence over wildlife protection, it must be noted that BLM, as mandated by FLPMA, is a multiple-use agency. BLM is charged with making decisions to balance and provide for a wide variety of multiple uses and resource protection. The challenge to do this in the California Desert is even more difficult because of the magnitude, complexity and importance of the area. For example, GAO criticized BLM's management of a free-play area for off-highway vehicle use in the Johnson Valley. However, this designation allowed BLM to direct this activity away from other, more critical tortoise habitats in the West Mojave Desert.

Finding: Key species are in decline. In particular, the desert tortoise, an important indicator species for the area, has seriously declined in recent years.

Response: The report indicates a rapid decline in the desert tortoise population and a lack of concern and initiative by BLM. To the contrary, BLM has been at the forefront of tortoise research, inventory, and management for more than 10 years. This is recognized by other agencies having management responsibility for the tortoise. In a recent news release, the U.S. Fish and Wildlife Service reported that BLM "has been in the forefront of efforts to protect the species. . . . the information BLM has already collected on the species will prove invaluable . . ."

BLM's 1988 desert tortoise *Rangewide Plan,* and the *Recommendations for Management of the Desert Tortoise in the California Desert,* set aggressive strategies for tortoise conservation and management. In addition, BLM has taken the lead in disease investigations and raven reduction strategies.

BLM has, within available funding and staffing, focused its management attention on the habitats of the highest priority species and steered other uses away from these areas to the maximum extent possible. The GAO report did not point out that BLM is in the forefront of research, inventory, and management for the flat-tailed horned lizard, which is a candidate for Federal listing. Nor does the report reference areas of the Desert where bighorn sheep populations have increased more than 40 percent because of BLM's management actions and cooperative efforts with other agencies.

GAO Recommendation: BLM should quickly complete development and implementation of wildlife plans.

Response: Overall, BLM agrees that completion and implementation of wildlife plans are essential to fully meet the objectives of the California Desert land use plan. BLM has the expertise and the commitment to see that it is accomplished. BLM is striving to meet this goal in recognition that this effort must compete with other important endeavors for limited Federal dollars.

Recent BLM activities pursued nationally reflect BLM's goals with respect to wildlife protection and enhancement. BLM has completed and is implementing *Fish and Wildlife 2000,* a strategic plan that outlines the direction of BLM's fish and wildlife program between now and the year 2000. BLM state offices, including California, are presently working on State Fish and Wildlife 2000 plans to outline the measures needed at a local level to achieve the national goals.

BLM's new director has given top priority to the BLM fish and wildlife program. As indicated during his confirmation hearings, the Director plans to increase the number of BLM fish and wildlife specialists and to work closely with the Administration and the Congress to enlist their support for BLM's expanded fish and wildlife initiatives. Likewise, even greater emphasis will be placed on fish and wildlife resource management in the California Desert. Some of BLM accomplishments that have already occurred in the California Desert follow.

BLM Accomplishments in the California Desert

Bighorn Sheep

The greatest problem facing wildlife in the Desert is access to water. In unique cooperative agreements with other agencies and organizations, BLM constructed guzzlers — or water devices that collect and store water through condensation or runoff — throughout bighorn sheep habitat. More than $2 million has been spent to build watering units, and additional funds will be used for disease prevention and to transplant sheep to areas where native populations have disappeared.

BLM and others have been successful in the relocations or transplants of bighorn sheep. In 1986, 44 bighorn sheep were released in the Sheephole Mountains to augment a population of approximately 5 existing sheep. Recent counts now indicate a reproducing population of 25 animals in the release area.

Because of the intrusion of a large number of burros and recreation use along the Colorado River, there had been no bighorn sheep in the Whipple Mountains since the 1950s. After excess burros were removed and water sites were developed, 28 sheep were released in the Whipple Mountains. The estimated bighorn sheep population in the Whipples now exceeds 100.

Since 1980, bighorn sheep populations in the California Desert have increased by more than 40 percent. In fact, Old Dad Peak and Marble Mountains have large herds which have been the source stock of numerous transplants. Current populations of bighorn sheep in the CDCA are now estimated at 4,600.

Flat-tailed horned lizard

BLM has contracted several studies and conducted extensive surveys on this species in coordination with the California Department of Fish and Game. BLM recently completed a comprehensive species management plan which will be signed by cooperating agencies. BLM also prepared the management plans for the East Mesa and Yuha Desert habitat areas for the flat-tailed horned lizard, and has designated a new ACEC in the West Mesa to protect additional habitat for the species.

Coachella Valley Fringe-toed Lizard Preserve

The Coachella Valley Preserve is a 13,000-acre preserve that is a permanent refuge for the fringe-toed lizard and a number of other rare or unusual species.

A confrontation over local expansion versus the threatened Coachella Valley Fringe-toed Lizard was resolved through the efforts of BLM, The Nature Conservancy, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. By acquiring 13,000 acres of key habitat, consisting primarily of wind-blown sand dunes, the lizard's domain, is adequately protected. The area is also home to another 180 species of wildlife, including four others considered rare: the Coachella round-tailed ground squirrel, the giant red velvet mite, the flat-tailed horned lizard, and the giant palm-boring beetle. The area also provides unique desert habitat for 25 birds.

Desert Tortoise

As part of its ongoing commitment to tortoise conservation, BLM has taken the lead in disease investigations for the last 10 years. Among BLM staff are the foremost authorities in tortoise management.

Both BLM's 1988 desert tortoise *Rangewide Plan,* and the *Recommendations for Management of the Desert Tortoise in the California Desert,* set aggressive strategies for tortoise conservation and management. BLM has made considerable progress, particularly in getting user involvement and cooperation to improve management of tortoise habitat. This has involved substantial monetary contributions from the California Department of Transportation, California Energy Commission, and others.

The Desert Tortoise Natural Area (DTNA) and Chuckwalla Bench are two critical wildlife management areas where densities of desert tortoises are among the highest in the southwestern United States. Acquisition of private properties and exclusion of incompatible uses within these two areas, as well as in other critical habitat areas, are considered essential management requirements to protection and survival of the tortoise. Through the support of the Defenders of Wildlife, as well as numerous other wildlife organizations, who provided support for acquisition funding, money has been appropriated for acquisition in the DTNA and the Chuckwalla Bench. With these funds, BLM has begun acquiring 7,500 acres in the DTNA and 11,000 acres on Chuckwalla Bench.

BLM has increased its presence in the DTNA by adding a new ranger to patrol and monitor the area, to provide visitor information and to assure that resource abuse does not occur.

Soda Springs

Soda Springs, located in the California Desert off Highway 15, sits at the end of the Mojave River Basin and provides a constant supply of water. Although nondrinkable, the water is a precious and rare resource in the dry desert climate. It attracts a wide variety of birds, including eagles, hawks, owls, and herons.

It has also become a classroom for the California State University Desert Consortium, which operates a desert studies center. The consortium offers weekend classes in subjects ranging from Mojave Desert mammals to landscape painting. College students throughout California and other states use the facilities, which now include two labs, to conduct classroom studies. Students catalog reptiles and conduct research into such animals as the Mojave tui chub, a desert fish once thought to be extinct, but now living in man-made ponds.

BLM also operates an orientation center providing tours every Saturday and Sunday. BLM visitor specialists serve as guides to give visitors a better understanding of the desert and its valuable resources. Recently, BLM developed and constructed 9 exhibits featuring detailed displays and illustrations of the area's geology, archaeology, vegetation, wildlife and natural history.

These are only a few examples of BLM's success in its aggressive wildlife management program. These accomplishments and the cooperative spirit fostered with other state and federal agencies attest to BLM's commitment to wildlife habitat management in the California Desert.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

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IN REPLY REFER TO:
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OCT 2 1989

COPY

Honorable Bruce F. Vento
Chairman, Subcommittee on National
  Parks and Public Lands
Committee on Interior and Insular Affairs
U. S. House of Representatives
Washington, D.C. 20515-6207

Dear Mr. Chairman:

During your Subcommittee's hearing on July 27, 1989, regarding H.R. 780, the California Desert Protection Act, allegations extrapolated from a 1985 Office of Technology Assessment (OTA) report were made by certain witnesses and Committee Members concerning the existence of critical and strategic materials within the California Desert. We disagree with the opinions set forth at that hearing by those individuals and, in particular, with Dr. Thomas Goerold of the Wilderness Society. Dr. Goerold's testimony ignored, among other things, the legal definition of "strategic and critical materials" as stated by Congress in 1979 and the President in 1988.

Specifically, Dr. Goerold and others disputed assessments made by the Bureau of Land Management (BLM), Bureau of Mines (BOM) and the U. S. Geological Survey (USGS) on the potential value of the Desert with respect to minerals. He opined that the Desert does not contain known reserves of "strategic minerals" based on an unoffical definition independently developed by the OTA in its 1985 report entitled "Strategic Technologies to Reduce United States Import Vulnerability." Dr. Goerold stated that none of the materials identified in 1985 by the OTA in its severely restrictive list are currently under production or have known reserves anywhere in the Desert. This statement is based on the OTA's independent determination that only four materials -- chromium, cobalt, manganese and platinum group materials -- have "first tier" significance. Thus, Dr. Goerold's opinions are contrary to public law and foster a distorted perception of mineral potential in the Desert.

The Administration recognizes strategic materials as defined in law. Accordingly, we accept as "strategic and critical materials" those materials defined in Section 12 of Public Law 96-41, the Strategic and Critical Materials Stock Piling Act of 1979, (the Act). We further base our findings on a list developed by the Department of Defense, pursuant to the Act and as authorized by Executive Order 12626 of February 25, 1988, which designated 50 mineral materials as strategic and critical. Since then 3 additional minerals have been added to the list. (Strategic and Critical Materials Report to Congress, September 1988, Table 2, pp. 35-39.) Using this list in conjunction with BOM/USGS and BLM mineral assessments, we have found that 23 critical and strategic materials are being mined, have been mined, or have potential for being present in the California Desert.

Further, while there may not be known reserves of OTA's professed "first tier" minerals in the Desert, the geologic environment does allow for their occurrence in the California Desert. Careful detailed surveys, improved technology and mineral exploration techniques, and improved understanding of occurrence of ore deposits could result in the discovery of strategic materials necessary for national security. To suggest otherwise ignores the need for achieving and maintaining U.S. global competitiveness.

The California Desert is an extraordinarily rich mineralized area. The minerals found there and their application are critical to the national economy, our national security and world trade. We simply cannot afford to jeopardize our Nation's future security through uninformed decisions and trust that you and your colleagues will continue to give serious consideration to this issue before it is decided that the highest and best use of any land in the California Desert is wilderness.

Sincerely,

Cy Jamison
Cy Jamison
Director
Bureau of Land Management

T S Ary
T S Ary
Director
Bureau of Mines

Senator **Bumpers**. Cy, you are fairly new on the job, but I know you had an opportunity to read the GAO report that was issued this summer in which the GAO criticizes BLM's management in the California desert. It is called "Planned Wildlife Protection and Enhancement: Objectives Not Achieved." And it criticizes BLM by saying, "While BLM considered wildlife needs during its overall land use planning process in the California desert, the wildlife protection objectives envisioned in the overall land use plan have not been achieved."

It goes on to say that while funding levels have not been adequate, "Even if funds were made available, however, BLM has not demonstrated the willingness to take the action necessary to protect wildlife interests."

What is your response to that?

Mr. **Jamison**. I gave the report a failing grade.

Senator **Bumpers**. As I say, you are new on the block and I am not holding you personally accountable.

Mr. **Jamison**. Thank you. I appreciate that.

Senator **Bumpers**. If you want to kick your predecessor, be my guest.

Mr. **Jamison**. I will leave that to others.

One thing that disturbed me about it is the comments on the desert tortoise in particular. We have a desert tortoise conservation area. We recently put a quarantine on the area. We have also identified critical habitat management areas for tortoise, not only in California but in Nevada and Utah as well.

And also, we have supported the listing of the tortoise. We did all those things. Also, we took some additional steps; we have a BLM-wide management plan for the tortoise which was a plan that said no net loss of habitat. Now, that is a big statement from a land management agency.

You couple that with two things which really are not the BLM's doing; one is the ravens, following the landfills out from the metropolitan areas, eating the juveniles, and two is the—whatever you call it—the tortoise virus they have, the respiratory ailment. I think we are approaching it realistically and up front, and I think that is a good statement about wildlife. Plus, in addition to that—and I have toured the area twice—we have done a lot of work in bighorn sheep, wildlife habitat management. We have done a lot of it with the State of California with guzzlers and everything else. I think that the record did not show that, and that troubled me, to be honest with you.

Senator **Bumpers**. Fish and Wildlife Service says it is requesting an emergency endangerment listing for the desert tortoise which would indicate that their numbers are still declining. Is that correct?

Mr. **Jamison**. Our information is in certain areas that is true, Senator.

Senator **Bumpers**. Does not the Barstow to Vegas motorcycle race cross the tortoise habitat?

Mr. **Jamison**. Yes, it does, and we have not approved that race.

Senator **Bumpers**. You have not?

Mr. **Jamison**. Not that I am aware of.

Senator **Bumpers**. What is your opinion of that, considering the endangered tortoise?

Mr. **Jamison**. We have to do it in consultation with the Fish and Wildlife Service. If we think we can manage the protections, then I think the race could go ahead.

Senator **Bumpers**. If the Fish and Wildlife Service told you they think that race is damaging to the tortoise population, would you refuse to allow that race to take place?

Mr. **Jamison**. I think we would have to, yes, sir.

I think we have to work cooperatively on the whole issue of the desert tortoise. I mean, there are some other issues, in my opinion, in addition to the motorcycle race.

Senator **Bumpers**. I agree with that. They are being shot, are they not?

Mr. **Jamison**. I hope not.

Senator **Bumpers**. Are not some people shooting the tortoise out there?

Mr. **Jamison**. Mr. Hastey says yes.

Senator **Bumpers**. Is that not correct?

Mr. **Hastey**. Yes, sir.

Mr. **Jamison**. I think there is a big issue, especially around those metropolitan areas, Las Vegas. Las Vegas is growing at the rate of about 4,000 people a month.

I think we have a good working relationship established on the ground with the Fish and Wildlife Service, the local developers, the local department of fish and game. We are working towards a resolution. I think we just have to address it up front and forward.

Senator **Bumpers**. Cy, you heard four congressmen testify before you did, three of them obviously very strongly opposed to S. 11. I have not signed off on this bill. I am not a steadfast proponent.

Everybody knows that I am a conservationist and protectionist. My inclination is to be sympathetic to the thrust of the bill, though I might disagree with the details of it. But in the plan about which much was made by the last three congressmen who testified, it was as though the plan somehow or other is a be-all-end-all solution to the problems of protecting or to the desire that everybody seems to profess to protect the desert in the habitat, the wildlife habitat and so on.

But in this plan, there are 8 million of the 12 million acres, I believe, that are classified C and L. Are you familiar with those designations?

Mr. **Jamison**. Yes, sir.

Senator **Bumpers**. I want to clarify for my own purposes that when an area receives a Class C or a Class L designation of the desert plan, that means that these designations recognize environmentally sensitive areas, do they not? And it is BLM's obligation, then, if this plan is finally approved by the Secretary, BLM will manage those areas as sensitive areas. That includes wildlife habitat and all of it.

But let me ask you this. Those designations, do they allow off-road motor vehicle use on those lands?

Mr. **Jamison**. Mr. Hastey, would you correct me if I am wrong. The answer is no in a lot of the areas, but the answer is also yes in other areas because we have particular areas via the plan that are set aside for off-road vehicles.

Senator **Bumpers**. Within the C and L classification some of it is subject to off-road vehicle use and some of it is not? Is that what you are saying?

Mr. **Hastey**. That is correct. The Class C is an interim classification until a wilderness decision is finally made by Congress.

In other words, the areas that we have recommended for wilderness are the Class C areas. So, between the time that classification was made in 1980 until Congress acts, there are some of those Class C areas that allow vehicle use based on traditional use in those areas, and they are not impairing the wilderness values.

The Class L areas, what we call the limited use, do have roads. These are designated roads and trails that the off-road vehicle people can use but cannot leave. They have to stay on these designated roads and trails, and they are designated by way of maps and on the ground.

Senator **Bumpers**. Then—as a matter of fact, none of the entire 12 million acres is managed as wilderness, even those acres in wilderness study areas and those recommended for wilderness.

Mr. **Hastey**. The 2.1 million acres is Class C. If Congress approved our recommendation, that would be managed under the Wilderness proposal.

The other six million acres would not be managed under wilderness restrictions. It would allow mining to continue, but under very careful mitigation before that mining can occur.

Senator **Bumpers**. I must say it does not seem like it is a very protective management plan when you consider that of the eight million in the C and L categories that only two million designated really is going to be restricted the way we restrict other wilderness lands. We are talking about a 25 million acre area where there are only two million acres.

Mr. **Hastey**. When you say 25 million acres, half of that is managed by BLM of which we are recommending two million acres for wilderness.

You have to understand in that area are also two million acres in the Death Valley National Monument that is proposed for wilderness, another 600,000 acres in the Joshua Tree Monument that is wilderness, and 400,000 acres in the Anza Borrego desert. So, with our proposal plus the other proposed wilderness areas plus the existing wilderness areas, you are talking about five million acres wilderness designation.

Senator **Bumpers**. But right now are you not allowing new mining claims to be staked in those areas?

Mr. **Hastey**. In the two million acres?

Senator **Bumpers**. Yes.

Mr. **Hastey**. Congress was very clear in their direction to us when they said we could not withdraw these lands for wilderness purposes. Only Congress can. So, we could not withdraw these from the mining law.

What we can prevent, though, is any kind of impairing mining that goes on in those wilderness areas, which essentially restricts mining. But they could file for mining claims in these areas until Congress acts.

Senator **Bumpers**. I think that gives this whole proposition some sense of urgency. S. 11 recognizes existing mining claims, and my guess is there are probably a lot of mining claims being filed right now in anticipation of this land being withdrawn.

Mr. **Hastey**. That is not true. No, there are not. There are about 30,000 mining claims in the desert and under Senator Cranston's bill, but we do not see a mass increase of mining claims being filed.

Senator **Bumpers**. But if the plan is not going to be approved until 1991——

Mr. **Jamison**. Mr. Chairman, we are right down to the end of that now. It has made it through all of the hoops and is in the Department.

We are doing one legal analysis on the taking provision. In my opinion, our proposal has to be given a very hard look by our friends in the Defense Department, and after that we will have Administration approval.

Senator **Bumpers**. What are the principal minerals being mined in the desert now?

Mr. **Jamison**. The ones I saw myself were talc and others. I do not know about the hard rocks, but I know from looking at the area, looking at the USGS maps and the Bureau of Mines maps, that it is a world class mineral area.

I personally think, if we are going to stay in the competitive and in the strategic mineral area and in the rare earth area, that is about our only area for rare earths in the United States.

The other options, from what I am told, are China and the Soviet Union for rare earths. So that is why——

Senator **Bumpers**. What about some of those rare minerals?

Mr. **Jamison**. There is a whole list on the periodic table. I can pull it out of my briefing book if you want me to.

Senator **Bumpers**. I would like for you to.

Mr. **Hastey**. There are 65 mineral commodities that are found in the desert. When we refer to rare earths, there are about ten rare earths.

Senator **Bumpers**. I have never heard that term before. What does it mean?

Mr. **Hastey**. They are not essentially rare, but they are similar to gold and silver. They are located—if you will remember the old element chart, they are way down the line on the element chart. But, they are elements yttrium, lanthanum, cerium, samarium, a whole series there that are used for catalytic converters. They are used for cracking of oil. They are used for superconductivity, and 95 percent of our rare earths are mined in the California Desert.

Senator **Bumpers**. What percentage?

Mr. **Hastey**. 95 percent.

Senator **Bumpers**. And there are some 60 of them?

Mr. **Hastey**. When we are talking about the rare earths, there are only about ten of those, but the total number of mineral commodities that are found in the desert is about 65, and that ranges from——

Senator **Bumpers**. That includes gold and silver?

Mr. **Hastey**. Yes.

Senator BUMPERS. What percentage of the gold mined in this country is mined in the area covered by S. 11, do you have any idea?

Mr. HASTEY. Well, there are not areas that are being mined that are covered by S. 11 now, but the production of gold in the California Desert now is about 450,000 ounces.

I could not tell you what percent, but we rank about second in the country in gold production behind Nevada.

Senator BUMPERS. Mr. Hastey, you are head of the state office of BLM in California, is that correct?

Mr. HASTEY. Yes, sir.

Senator BUMPERS. You heard some allusion and reference here to the fact that 70 to 75 percent of the people in a poll in the late 1988 favor preserving this desert with at least some if not all of the characteristics described in S. 11.

Do you have any objection with those allegations?

Mr. HASTEY. I think you will find that kind of percent, particularly in the L.A. Basin and San Francisco. People do not understand what a wilderness designation does.

I find that most of our publics in California think a wilderness area is that place they drove to last weekend to camp. That is their idea of a wilderness. They do not really understand the restrictions that are placed on wilderness in terms of access and in terms of any future mining.

Senator BUMPERS. What do you think they have in mind when they say they favor preserving it?

Mr. HASTEY. In preserving the way they would like to use it.

In other words, the way they would like to use it—to be able to go out there and camp and not be disturbed by——

Senator BUMPERS. Is there anything in the bill that would keep them from camping?

Mr. HASTEY. They would not have the access into those areas by road.

Senator BUMPERS. Staff tells me there are 30,000 miles of roads in there.

Mr. HASTEY. There is about 17,000 miles of dirt road, but Senator Cranston's bill eliminates about 2,500 miles of what we consider quality access ways and routes that the public uses to get back out of this back country.

Much of the mileage that they refer to is located more in the west Mojave and some of the urban areas, but the urban areas that essentially are locked up by S. 11 are some of the more scenic areas that people can drive into.

Senator BUMPERS. Mr. Hastey, I would assume that if everything is just going swimmingly there, this bill would never have been introduced, and the poll would never have been taken.

I assume that there is at least some concern by people about what is happening to this area, not only to the wildlife habitat, not just for the tortoise.

I have been around that desert some, and I do not necessarily resent those tracks of off road vehicles, but I do think it would be good if we limited the areas in which that could be done. I frankly think that those RV's are one of the reasons the people of California are getting increasingly agitated about what they see as a sort of a willy-nilly destruction of a pristine, fragile area.

Mr. **Hastey**. I do not see that happening, sir. If you fly over the desert, better than 95 percent of the desert is untracked and untouched.

We have our roads designated, we have maps out that show designated roads and trails.

Senator **Bumpers**. Why not leave it that way?

Mr. **Hastey**. And that is what our plan calls for. Our plan calls for that.

It does not allow unrestricted off road vehicle use. That vehicle use is planned, it is designated on the ground, and it is designated by maps.

And we are always going to have one or a few people who are going to violate that just like we have that happening in national parks and Forest Service lands and counties and cities.

Senator **Bumpers**. So, what you are saying is just nothing much needs to be done?

Mr. **Hastey**. Well, I think the one thing that was articulated pretty well was that we could always use more manpower and more money.

But even with designation of the wilderness or designation of parks, that requires additional funds and manpower to manage those.

Senator **Bumpers**. I admit we are broke. You are not likely to get any money.

Mr. **Hastey**. That is correct, and I think we do a lot with the little we have. We work with the Fish and Game. They make major contributions in wildlife management. The Nature Conservancy has made millions of dollars of investment on public lands both in stewardship and acquisition.

If we were doing such a lousy job in wildlife management, I do not think the Nature Conservancy would make the kind of investment in money and manpower that they have.

The Trust For Public Lands, the same way, major investments in acquisitions.

Senator **Bumpers**. Mr. Hastey, the Nature Conservancy only invests to protect something hoping the government will later take them out so that the area is protected. They just bought 30,000 acres out in Oklahoma in what we call the Tall Grass Prairie, and it is threatened, and that is the reason they bought it.

And they expect the United States government to eventually take them out of that investment and make that a national monument.

And I must say that ranks higher on my priority list than the California desert does.

But my point is, the Nature Conservancy, I think, is one of the greatest organizations in the world because they move in and do responsible things when government refuses to.

Mr. **Hastey**. Or when government cannot afford to.

They also maintain, they also retain some of the lands, and they also provide stewardship. They actually provide a presence to assist us in managing places like Big Marengo.

They have a presence there, so they have made a contribution in the stewardship along with the acquisition.

Senator **Bumpers**. BLM is supposed to be a good steward, too, isn't it?

Mr. **Hastey**. We like to approach it on a cooperative basis. We have something like 200,000 hours of volunteer help in California, and we are very proud of that.

I think it is very important that we get people involved in managing these resources and not just BLM.

Senator **Bumpers**. Cy, Mr. Hastey, thank you very much for being with us. We may put some additional questions to you for the record. Thank you for being here.

We are going to have to start with the five-minute rule here very shortly. I am as guilty of taking time as the witnesses are, so we are all going to have to restrain ourselves.

Our next witness is Robert A. Stone, Deputy Assistant Secretary for Defense Installations.

Can you summarize your statement?

Mr. **Stone**. I sure can, Mr. Chairman.

STATEMENT OF ROBERT A. STONE, DEPUTY ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS), DEPARTMENT OF DEFENSE

Mr. **Stone**. Sitting next to me, Mr. Chairman, is Mr. Charles E. Adolph, the Acting Director of Operational Test Evaluation of the Defense Department, and I am also accompanied by, from your right, Brigadier General Tom Adams, Director of Facility and Services, U.S. Marine Corps, Rear Admiral Steve Briggs, Commander of Navy Flight Attack Wings, Pacific, Brigadier General Marvin Ervin, U.S. Air Force Deputy Director of Operations, and Brigadier General Larry Lehowicz, U.S. Army, Director of Training.

The Defense Department is very interested in this legislation. We have a big interest in the Southern California desert, both present and future.

We have five major bases and ranges in that area. They are among the largest and most important in the nation.

This is where we conduct most of our large-scale unit training exercises, and where we test our major weapons.

We are not only the custodians of the land. We are custodians of over three million young men and women who defend America.

We use the desert to train our soldiers, sailors, marines and airmen to survive in combat.

We have steadily moved away from more populated areas into less populated areas.

We cannot leave the Southern California desert because there is nowhere else to go.

Realistic training and testing requires large areas of land and airspace for combined ground and air forces to fight against each other acting like an enemy would and to test weapons on which our future security depends.

We are good custodians of the environment. The bill itself recognizes our stewardship. It says in S. 11, "military activities have not impaired the natural and cultural values of the area."

Our operations keep people away. This protects natural habitats. DOD lands, in fact, often provide the best remaining habitats for endangered species.

For example, the Department of Defense is providing burrows for the desert tortoise and the desert bighorn sheep thrive on our range.

The Department maintains a balance between the needs of local communities and national defense.

We realize we cannot operate in a vacuum. We are part of the process of compromise that the panel of California Congressmen discussed.

S. 11 would change the rules and lock the Department of Defense into today's military tactics and technology. If Congress had locked us into what we were doing 15 years ago, the best training and testing areas in the world at Fort Irwin, Twenty-Nine Palms, Edwards Air Force Base and China Lake would not exist today, and neither would our cruise missiles.

Today's land and airspace are barely sufficient to do an adequate job of preparing our young men and women to survive combat.

We need flexibility to expand, not only to meet current requirements, but also to keep pace as our units, weapons and tactics improve.

S. 11 seeks to provide for a low-level overflight, but only at current degrees and locations. This would leave us little flexibility to accommodate constantly evolving technology and aviation training doctrine.

For example, we need low-level routes to test today's cruise missiles that did not exist a few years ago.

The phrase in the bill, "approximately the same location and degree as existed prior to the date of enactment," serves to fix aviation testing and training at 1989 standards.

In other words, while technology and threats are changing, our testing and training will not.

We would then fail in the most important obligation we have, the obligation to prepare young Americans to survive in combat.

S. 11 would severely restrict the Defense Department's present ability to perform its mission, but more importantly, it compromises the future, and it risks the lives of future servicemen and women, and that is why the Defense Department opposes this legislation.

That concludes my summary, Senator Bumpers.

[The prepared statement of Mr. Stone follows:]

NOT FOR PUBLICATION UNTIL RELEASED
BY THE COMMITTEE ON ENERGY AND
NATURAL RESOURCES
UNITED STATES SENATE

STATEMENT OF

ROBERT A. STONE

DEPUTY ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS)

BEFORE THE

SUBCOMMITTEE ON PUBLIC LANDS,

NATIONAL PARKS AND FORESTS

OF THE

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

ON THE

CALIFORNIA DESERT PROTECTION ACT OF 1989

S. 11

OCTOBER 2, 1989

NOT FOR PUBLICATION UNTIL RELEASED
BY THE COMMITTEE ON ENERGY AND
NATURAL RESOURCES
UNITED STATES SENATE

Mr. Chairman:

Thank you for the opportunity to testify today concerning Senate Bill S.11. I have with me today experts in the fields of training and testing: I would like to introduce to the committee: Mr. Charles E. (Pete) Adolph the Acting Director of Operational Test and Evaluation; Brigadier General W. T. (Tom) Adams USMC, Director, Facilities and Services Division; Rear Admiral Steven R. Briggs USN, Commander, Light Attack Wings, Pacific; Brigadier General Larry G. Lehowicz USA, Director of Training U. S. Army; and Brigadier General Marvin S. Ervin USAF, Deputy Director of Operations, U. S. Air Force.

This bill would incorporate approximately eight million acres of southeastern California desert land into the National Park and National Wilderness Preservation systems and would indirectly affect millions of additional acres.

The Department of Defense is deeply concerned with this legislation because we have a vested interest, both present and future, in the desert. We are the custodians of five significant military bases or ranges in the California desert area, some of the largest and most important of their kind in the nation. This is where we conduct most of our large scale unit training exercises and major weapons testing.

We are not only the custodians of large portions of land, we are also custodians of over four million young men and women who serve America's defense. We use the desert to train our soldiers, marines, and airmen to survive in combat. We have steadily moved away from more populated areas into less populated areas, like the Southern California desert, to provide the means for realistic training and testing. We can't leave the desert, there is no place else to go.

Realistic training requires large areas of land and airspace so combined ground and air forces can fight against other forces acting like an enemy would. To continue to provide this realistic training we need the ability to change, for the nature of warfare is constantly changing. The isolation of the desert allows for this. Testing of weapons also requires a realistic environment to ensure success when these weapons are called upon in battle. The very nature of weapons testing requires a sparsely populated area to minimize the risks to human health and safety.

We are good custodians of the environment. Military operations keep people away; this protects natural habitats. DoD lands often provide the best remaining habitat for endangered species. The Department is providing burrows for the desert tortoise, and desert big horn sheep thrive on our ranges, just to name two of our conservation efforts.

The Department of Defense maintains a delicate balance between the needs of local communities and the National defense. We realize we can't operate in a vacuum. We are part of the political process but more importantly, it is our policy to be a good neighbor. We know we can't change the rules whenever we want.

In the California desert area we have for years dealt with local citizen groups in cities throughout the area; with state agencies like the California Environmental Affairs Agency and the California Department of Fish and Game;
with numerous special interest groups; and with Federal agencies like the Bureau of Land Management, the National Park Service, the Forest Service, the Federal Aviation Administration, and the Environmental Protection Agency. With so many varied interests, it isn't always easy. But through cooperative management, we have been able to achieve this delicate balance.

When we don't do a good job, we face litigation or we hear from members of Congress who often apply highly leveraged methods to represent their constituents' interest. This system of checks and balances serves the nation well.

The proposed legislation would change the rules and lock the Department of Defense into today's military tactics and technology. If Congress had locked us into what we were doing 15 years ago, the best training and testing areas in the world at Fort Irwin, Twenty-nine Palms, Edwards AFB, and China Lake would not exist today.

Today's land and airspace are barely sufficient to do an adequate job of preparing our young men and women to survive combat. If enacted, this legislation would severely diminish vital military weapons testing and combat readiness training by limiting test areas and curtailing gunnery range practice, combat maneuver exercises, and realistic weapons testing. At the same time, the legislation would increase pressure to accommodate multiple uses, on the very limited area in the California Desert which would remain.

The legislation would also restrict low-level military overflights of wilderness areas to the present type and level of activity -- impairing the development of air-strike tactics, and reducing realistic weapon testing and combat training capability.

We also need flexibility to expand, not only to meet current requirements, but also to keep pace as the technical complexity of our units, weapons, and tactics improve. A recent land use requirement study, completed in 1985, has proposed expansion of the National Training Center at Fort Irwin. Approximately 280,000 acres of additional land is needed to accommodate today's requirements.

The Bureau of Land Management and the Army are preparing a draft environmental impact statement for this expansion in compliance with the National Environmental Policy Act, Federal Land Policy and Management Act, and the Endangered Species Act. This document will be released for public comment upon completion of Section 7, the consultation portion, of the Environmental Impact Statement.

More recently, Congress and Secretary Carlucci established the Defense Secretary's Commission on Base Realignment and Closure to get rid of the bases we don't need. Even though the Commission had been chartered to reduce military land holdings, one of its major recommendations was expansion of training areas in the southwest desert. S. 11 would prohibit the expansion we know we need now, as well as any future expansion.

In a related matter, the proposed multiple wilderness designations to the north of the Marine Corps Air Ground Combat Center at Twenty Nine Palms will greatly complicate, if not halt, the initiative underway to link this training center with the National Training Center at Fort Irwin, through a corridor along existing trails and washes. This corridor would provide for testing of command and control procedures over greater distances and permit the more efficient use of existing training assets. Air training, as much as ground training, would be affected by this legislation.

The wilderness designation of the multiple areas east and north of the Marine Corps Chocolate Mountain Gunnery Range invites substantial future conflicts with the public's perception of wilderness. The Chocolate Mountain Gunnery Range hosts the heaviest joint training use of live-ordnance and is used 7 days a week, year round. While the legislation treats military air operations as compatible with wilderness, training on the range is akin to a major battle. Pressure to alter operations is inevitable if the designation of adjacent areas is changed.

In modern air warfare, high-speed, low-level flight is essential for survival. This legislation would create a direct conflict between land use designations and essential low-level military overflight. The bill seeks to provide for low-level overflight, but only at current degrees and locations. This would leave little flexibility to accommodate constantly evolving technology and aviation training doctrines.

For example, we need low-level routes to test today's cruise missiles that didn't even exist a few years ago. The phrase "in approximately the same location and degree as existed prior to the date of enactment" serves to fix aviation testing and training to 1989 standards. In other words, while technology and threats are changing, our testing and training will not. We will fail in the most important obligation we have: the obligation to prepare young Americans to survive in combat.

The bill does provide for the withdrawal of certain public lands within Chocolate Mountain and the Naval Weapons Center, China Lake, California. The withdrawals for the southern portion of Chocolate Mountain and for China Lake's Mojave B range have expired and require renewal, whether through this or another legislative proposal.

Some of our principal concerns with the withdrawal title are:

o The proposed time period of 15 years is too short and fails to recognize the basic long-term use of the land as bombing and gunnery ranges. There is no foreseeable prospect for returning any major portion of the lands, because it is beyond our current capability to remove the large amount of unexploded ordnance there.

o The proposed mining of Chocolate Mountain is inconsistent with effective military operations and public safety. These two considerations were major factors when Congress authorized the federal acquisition of outstanding interests within the range, including mining interests.

Most importantly, this legislation would remove the current administrative process used to effect change, already in place under established laws and regulations for flight operations, and as exists under the Federal Land Policy and Management Act for land management.

For example, the Federal Land Policy and Management Act provides for the protection and administration of public lands in the California Desert Conservation Area "within the framework as a program of multiple use and sustained yield, and the maintenance of environmental quality." (The area proposed for protection under S. 11 includes the California Desert Conservation Area as well as additional acreage.)

Under the Federal Land Policy and Management Act, the Secretary of the Interior, in consultation with the California Desert Conservation Area Advisory Committee, prepared a comprehensive, long-range plan for the management, use, development, and protection of the public lands within the Conservation Area. The plan provides for the protection of certain lands, while recognizing the needs of miners, ranchers, utility companies, and Federal interests such as the military. The plan received approximately 400,000 public comments and was approved in 1980. Federal agencies, including the Department of Defense, concurred with the final plan.

The plan also provides for an annual amendment process by which the Department of Interior, Bureau of Land Management, or the public, may propose revisions through the Advisory Committee. Enactment of S. 11 would, in effect, disregard this substantial public input. Most importantly, it would reverse the careful balancing of interest and the consensus which emerged from the Desert Plan.

In conclusion, Mr. Chairman, we believe S. 11 would severely restrict the Defense Department's present ability to perform its mission. But more importantly it compromises the future, and it risks the lives of future Service men and women. We oppose this legislation.

Senator **Bumpers**. Mr. Secretary, are you operating under any restrictions now in the California desert?

Mr. **Stone**. Oh, yes. We have a lot of them.

Senator **Bumpers**. Are they satisfactory? Are you happy with the way things are right now?

Mr. **Stone**. We are satisfied with them.

There is a constant state of compromise. We understand we do not have a blank check to operate, but by and large we are doing what we need to be doing.

Senator **Bumpers**. There is not anything in the bill now that would change your modus operandi, is there, as long as you were permitted to continue doing what you are doing right now?

Mr. **Stone**. Yes. That is fair, Senator, but in the process of negotiating and in the process that was set up, we make compromises, but we are doing things now that we were not doing a few years ago because of military necessity or military opportunity.

Just thinking back a few years, we would have said we do not need to fly small cruise missiles at low altitudes from the Pacific all the way across Southern California because we did not know of such a thing, and now they are here.

And, because of our facilities in the Southern California desert, we were able to develop them.

Senator **Bumpers**. What would you like S. 11 to say to satisfy your concerns?

Mr. **Stone**. We have miles of technical language, but I think most simply put—and this is not all the lawyers' language—we would like to be able, where military necessity dictated, to fly over that entire area, and we would like to have the opportunity to make fairly modest expansions of our ground training areas at Fort Irwin and around there.

Senator **Bumpers**. Well, could you draft language that would accomplish that and we will put it in the bill?

Mr. **Adolph**. There are two issues. One is the use of the existing airspace. As new technologies evolve, we may need new low-level routes to test those technologies, so we would need the flexibility to establish new low-level routes in the future.

Secondly, S. 11, when combined with Public Law 100–91 which directs the Department of Interior to develop an aircraft management plan may further restrict us. Public Law 100–91 directs the FAA to establish new low-level minimum altitudes over National Parks and Wilderness areas.

So, even if you were to grandfather the existing low-level routes, Public Law 100–91 would have some impact on those and would certainly restrict us from establishing new low-level routes.

Senator **Bumpers**. Well, what if we pass this bill and we exempt you from the requirements of Public Law 100–91, would that be okay?

Mr. **Adolph**. My preceding remarks address the airspace needed for testing. What we need is the prerogative of establishing, in the future, low-level routes that we deem essential for testing new technologies as they evolve. That is the test airspace concern. The training community has airspace concerns as well as some other considerations.

Senator **Bumpers**. Gentlemen, let me say to you that nobody here wants to impede the necessary training of the Air Force, Marine Corps and Army and Navy in the area, but we do not want to just hear that you are opposed to everything.

I mean I am trying to work out something here that might be acceptable to you so you have discretion in the future for whatever new technologies come along, and I understood that Senator Cranston has been leaning over backwards to address these concerns and thought he had.

For example, we allow the Army to train in national forests, and they of their own volition—not because Congress has made them—do certain things.

For example, the Army lets the public know in advance when they are going to be training at night and so on in the forest so the hunters and other people will be forewarned.

And while, as I say, we do not want to impede your training or impair our national security in any way over this bill, we do need some spirit of cooperation and willingness to at least tell us what, if anything, would be acceptable to you.

I must confess to you, I am getting the impression that you just do not want the bill, but there are a lot of people who do want the bill. We want to do it in such a way that your national security is not impeded.

As a former Marine, I tramped over that whole area out there. We need it. I did not think at the time I was tramping over it we needed it so badly.

Mr. **Adolph**. Well, Mr. Chairman, I think the people at this table are as concerned as anyone about preserving the wilderness areas.

I myself spent 25 years living on the California desert and have backpacked into those desert and mountain areas many times. I believe that I am a conservationist.

But, by the same token, we need some flexibility to test new weapon systems. I think we in DOD have proven our stewardship of those areas.

You look at the areas that are under DOD management, the Naval Weapons Center in particular, and what has been done to preserve wilderness values.

The California desert area is a unique national resource in many respects. It has the terrain features required for low level testing.

The reason those test and training facilities are there in the first place is because it (the desert) does not have the population pressures that exist in other areas of the country and, secondly, it has the varied terrain features that we need to test and train with today's weapons systems.

Mr. **Stone**. Senator, it is not our job to decide the greater picture of what should be done with the Southern California desert, but it is our job to tell you what the Defense Department needs to be able to operate in the future.

Senator **Bumpers**. That is what I am asking.

Mr. **Stone**. It is a reasonable question, and we will provide you an answer, sir.

Senator **Bumpers**. Thank you very much and, gentlemen, thank you all for being with us.

Our next witness is James Duffus, III, Director for Natural Resources Management Issues, GAO.

He is accompanied by Robert Robinson, Assistant Director for Natural Resource Management Issues, GAO.

STATEMENT OF JAMES DUFFUS III, DIRECTOR, NATURAL RESOURCES MANAGEMENT ISSUES, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY ROBERT ROBINSON, ASSISTANT DIRECTOR, NATURAL RESOURCES MANAGEMENT ISSUES

Mr. Duffus. Thank you.

I would like to take a minute and briefly introduce my colleagues. On my right is Bob Robinson, who is an Assistant Director in GAO, with direct responsibility for the report which you referred to on the California desert.

To my immediate left is Jim Luckroth, and to his left is Joe Gibbons. They are the team from our Seattle Regional Office that spent about four months in the California desert in developing information for the report.

I will summarize my statement, Mr. Chairman, and request that my prepared statement be included in the record.

I am pleased to be here today to discuss our June 1989 report on the management of wildlife habitat in the California desert conservation area by the Department of the Interior's Bureau of Land Management.

Our report dealt with the effectiveness of BLM efforts to protect and enhance wildlife and wildlife habitat under current legislative authority.

It did not address the specific merits of S. 11, a bill aimed at protecting the public lands in the California desert and the focus of today's hearing.

Because we have not analyzed the many provisions of S. 11 in depth, we have no overall position on it. Our work, however, suggests that a significant change in management philosophy will be needed if the wildlife habitat in the California desert is to be effectively preserved.

While BLM considered wildlife needs in its land use planning process and reflected concern for wildlife in establishing management objectives for the area, it has not done a good job of translating the broad expression of concern into tangible wildlife protection efforts and achievements.

Many plans were completed behind schedule. Moreover, as of March 1989, almost a decade after the comprehensive California desert plan was issued, 38 of the 85 required habitat management and area-of-critical environmental concern plans remained to be developed.

Even when plans have been developed, they have not always been effectively implemented. Of the 349 tasks in the 22 completed wildlife-related plans the GAO reviewed, work had been completed on only 33 percent, another 21 percent had been partially completed, and work on 46 percent had not started.

An element often missing from plan implementation was systematic monitoring designed to tell managers how well plans were being implemented, their impact on wildlife, and whether plan changes should be made.

The land managers we interviewed were almost unanimous that monitoring is an essential element of any wildlife plan, but that such work was rarely, if ever, performed. They said monitoring is consistently assigned low priority by BLM and is often delayed indefinitely.

BLM does not maintain current wildlife inventory and population trend data for the more than 635 vertebrate species and countless other species that live in the California desert. Without such data it is not possible to broadly assess the practical effects of BLM's performance on the area's wildlife. However, available information indicates that the effects are not favorable. In particular, the desert tortoise—an important indicator species for the overall health of the area's habitat—is declining rapidly. Available BLM monitoring data show that the tortoise populations have decreased 50 percent or more since 1979 and, according to tortoise experts, the species may be sliding irreversibly toward extinction.

The shortfalls in BLM's efforts to achieve wildlife protection and enhancement objectives set forth in the California desert plan stem from two main causes. First, spending levels called for in the comprehensive plan to facilitate development and implementation of wildlife plans have never been achieved. The plan called for total expenditures of about $130 million during fiscal years 1982 through 1988. Actual spending totalled only $53 million, or about 40 percent of the identified requirement. The shortfall in resources is further reflected in staffing levels.

The BLM district responsible for the California desert plan implementation has never had what local BLM officials believed to be the minimum number of wildlife biologists needed to handle the assigned workload. As a result, we calculated that with about 12 million acres managed by BLM in the California desert, each of the eight BLM wildlife biologists currently assigned to the California Desert Conservation Area is responsible for wildlife-related work on an average of one and a half million acres.

Second, BLM has generally allowed economic and recreational interests to take precedence over wildlife interests when conflicts have arisen.

In a few instances, BLM has taken steps to emphasize wildlife needs as it balanced the competing demands on the desert's resources. More often, however, it has resolved land use conflicts in favor of economic and recreational interests. For example, it has permitted motorcycle races and established off-highway vehicle "free play" areas in important desert tortoise habitat, has allowed livestock grazing that is harmful to various species, and has frequently not placed sufficient restrictions on mining operations to reduce adverse effects on wildlife.

As an indication of its orientation to economic interests, BLM recently opposed a California Department of Fish and Game recommendation to place the tortoise on the state's list of threatened species. Such a listing would have imposed wide-ranging restrictions on sheep and cattle grazing and off-highway vehicle use in the tortoise's habitat. In stark contrast, soon after BLM opposed state listing, BLM's sister agency in the Department of the Interior—the

Fish and Wildlife Service—concluded that the threats to the tortoise were so severe that it placed the Mojave population of the species on the federal list of endangered species under emergency listing procedures.

On the basis of our assessment of BLM's performance in managing wildlife habitat in the California desert and considerable other work on BLM's stewardship of the public lands in general, we are not optimistic about the future of wildlife and other conservation objectives on BLM lands in the California desert unless the agency significantly alters the way it does business. Lasting broad-based improvement in BLM's wildlife protection and enhancement efforts in the California desert probably cannot occur until BLM requests and receives funding and staffing sufficient to carry out the comprehensive plan, and makes the institutional commitment to focus more on the long-term health of the land than on the immediate needs of special interest groups.

In previous testimony on BLM's management of the public lands, we called for a fundamental change in course for BLM directed toward more effective implementation of the principles of multiple use and especially sustained yield as mandated by the Federal Land Policy and Management Act. We recognize that such a basic change will take time. We believe, however, that substantive progress in this direction will have to be made if the long-term health of the California desert wildlife habitat under BLM stewardship is to be ensured.

Mr. Chairman, that concludes my statement, and I would be glad to answer questions.

[The prepared statement of Mr. Duffus follows:]

United States General Accounting Office

GAO

Testimony

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Shortfalls in BLM's Management of Wildlife Habitat in the California Desert Conservation Area

Statement of
James Duffus III, Director,
Natural Resources Management Issues
Resources, Community, and Economic
Development Division

Before the
Subcommittee on Public Lands, National
Parks and Forests
Committee on Energy and Natural Resources
United States Senate

GAO Form 160 (12/87)

Dear Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss our June 1989 report on the management of wildlife habitat in the California Desert Conservation Area (CDCA) by the Department of the Interior's Bureau of Land Management (BLM).[1] Our report dealt with the effectiveness of BLM efforts to protect and enhance wildlife and wildlife habitat under current legislative authority. It did not address the specific merits of S.11--a bill aimed at protecting the public lands in the California Desert and the focus of today's hearing.

Because we have not analyzed the many provisions of S.11 in depth, we have no overall position on it. Our work, however, suggests that a significant change in management philosophy will be needed if the wildlife habitat in the California Desert is to be effectively preserved.

CURRENT MANAGEMENT REQUIREMENTS FOR THE CDCA

The CDCA, a 25-million-acre area in southeastern California, comprises about 25 percent of the total land in the state and is located within one of the country's fastest growing regions. About one-half of the total area is public land managed by BLM. The area has received increased attention because of competing demands on the desert's resources for wildlife habitat and economic development and recreation. The stakes are high because the desert environment is fragile and slow to heal once it has been damaged.

The Congress recognized these competing demands in the Federal Land Policy and Management Act of 1976. To provide a framework for balanced use of the area, the act required BLM to prepare a comprehensive land use plan for the CDCA structured around the concepts of multiple use and sustained yield. The act defined multiple use as the management of public lands and their various resource values, such as fish and wildlife, range, recreation, and watershed, so that they are used in the combination that will best meet the present and future needs of the public. Sustained yield requires the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of various renewable resources of public lands, consistent with multiple use.

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[1] California Desert: Planned Wildlife Protection and Enhancement Objectives Not Achieved (GAO/RCED-89-171, June 23, 1989).

After a 4-year effort in which all major users of the California Desert's resources participated, BLM issued its comprehensive land use plan in December 1980. This plan set forth numerous principles to help guide BLM managers in their day-to-day efforts to balance the competing demands on the desert's resources. Concerning wildlife, the plan states that "immediate management is required to protect unique and sensitive habitats; sensitive, rare, threatened and endangered species; and representatives of more common desert habitats and ecosystems and the fish and wildlife resources they support."

To implement this overall wildlife protection and enhancement objective, the comprehensive plan required BLM to develop more specific plans for 57 wildlife habitat management areas and 28 wildlife-related areas of critical environmental concern. These implementing plans identify required tasks and associated milestones for completing them, as well as the monitoring necessary to measure progress. They also include estimates of the staff and financial resources required to complete the tasks.

CDCA WILDLIFE PROTECTION OBJECTIVES NOT ACHIEVED

While BLM considered wildlife needs in its land use planning process and reflected concern for wildlife in establishing management objectives for the area, it has not done a good job of translating this broad expression of concern into tangible wildlife protection efforts and achievements. Many plans were completed behind schedule. Moreover, as of March 1989, almost a decade after the comprehensive CDCA plan was issued, 38 of the 85 required habitat management and area-of-critical-environmental-concern plans remained to be developed.

Even when plans have been developed, they have not always been effectively implemented. Of the 349 tasks in the 22 completed wildlife-related plans that GAO reviewed, work had been completed on only 33 percent, another 21 percent had been partially completed, and work on 46 percent had not started. An element often missing from plan implementation was systematic monitoring designed to tell managers how well plans are being implemented, their impact on wildlife, and whether plan changes should be made. The land managers we interviewed were almost unanimous that monitoring is an essential element of any wildlife plan but that such work was rarely, if ever, performed. They said monitoring is consistently assigned a low priority by BLM and is often delayed indefinitely.

BLM does not maintain current wildlife inventory and population trend data for the more than 635 vertebrate species and countless other species that live in the CDCA. Without such data it is not possible to broadly assess the practical effects of BLM's performance on the area's wildlife. However, available information indicates that the effects are not favorable. In particular, the desert tortoise--an important indicator species for the overall health of the area's habitat--is declining rapidly. Available BLM monitoring data show that tortoise populations have decreased 50 percent or more since 1979 and, according to tortoise experts, the species may now be sliding irreversibly toward extinction.

Other information demonstrates that the problems with degraded habitat are not restricted to the desert tortoise. Several other species such as the Mohave ground squirrel and a population of Peninsular bighorn sheep have also experienced steep declines.

FUNDING SHORTAGES AND LAGGING COMMITMENT HAMPER BLM'S PERFORMANCE

The shortfalls in BLM's efforts to achieve the wildlife protection and enhancement objectives set forth in the CDCA plan stem from two main causes. First, spending levels called for in the comprehensive plan to facilitate development and implementation of wildlife plans have never been achieved. The CDCA plan called for total expenditures of about $130 million during fiscal years 1982 through 1988. Actual spending totaled only $53 million, or about 40 percent of the identified requirement. The shortfall in resources is further reflected in CDCA staffing levels. The BLM district responsible for CDCA plan implementation has never had what local BLM officials believe to be the minimum number of wildlife biologists needed to handle the assigned workload. As a result, we calculated that with 12.1 million acres managed by BLM in the CDCA, each of the eight BLM wildlife biologists currently assigned to the CDCA is responsible for wildlife-related work on an average of 1.5 million acres.

Second, BLM has generally allowed economic and recreational interests to take precedence over wildlife interests when conflicts have arisen. In a few instances, BLM has taken steps to emphasize wildlife needs as it balanced the competing demands on the desert's resources. More often, however, it has resolved land use conflicts in favor of economic and recreational interests. For example, it has permitted motorcycle races and established off-highway vehicle "free play" areas in important desert tortoise habitat, has allowed livestock grazing that is harmful to various species, and has frequently not placed sufficient restrictions on mining operations to reduce adverse effects on wildlife. As an indication of its orientation to economic interests, BLM recently opposed a California Department of Fish and Game recommendation to place the tortoise on the state's list of threatened species. Such a listing could have imposed wide-ranging restrictions on sheep and cattle grazing and off-highway vehicle use in the tortoise's habitat. In stark contrast, soon after BLM opposed state listing, BLM's sister agency in Interior--the Fish and Wildlife Service--concluded that the threats to the tortoise were so severe that it placed the Mojave population of the species on the federal list of endangered species under emergency listing procedures.

PROSPECTS FOR WILDLIFE UNCERTAIN UNDER BLM'S STEWARDSHIP

On the basis of our assessment of BLM's performance in managing wildlife habitat in the California Desert and considerable other work on BLM's stewardship of the public lands in general,[2] we are not optimistic about the future of wildlife and other conservation objectives on BLM lands in the California Desert unless the agency significantly alters the way it does business. Lasting broad-based improvement in BLM's wildlife protection and enhancement efforts in the California Desert probably cannot occur until BLM requests and receives funding and staffing sufficient to carry out the comprehensive CDCA Plan, and makes the institutional commitment to focus more on the long-term health of the land than on the immediate needs of special interest groups.

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[2] Related GAO reports and testimonies are listed in an attachment.

In previous testimony on BLM's management of the public lands, we called for a fundamental change in course for BLM directed toward more effective implementation of the principles of multiple use and especially sustained yield as mandated by the Federal Land Policy and Management Act. We recognize that such a basic change will take time. We believe, however, that substantive progress in this direction will have to be made if the long-term health of California Desert wildlife habitat under BLM's stewardship is to be ensured.

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Mr. Chairman, this concludes my prepared statement. I would be pleased to respond to any questions you or other members of the Subcommittee may have.

RELATED GAO PRODUCTS

Change in Approach Needed to Improve the Bureau of Land Management's Oversight of Public Lands (GAO/T-RCED-89-23, Apr. 11, 1989).

Importance of Financial Guarantees for Ensuring Reclamation of Federal Lands (GAO/T-RCED-89-13, Mar. 7, 1989).

Interior Issues (GAO/OCG-89-24TR, Nov. 1988).

Management of Public Rangelands by the Bureau of Land Management (GAO/T-RCED-88-58, Aug. 2, 1988).

Public Rangelands: Some Riparian Areas Restored but Widespread Improvement Will Be Slow (GAO/RCED-88-105, Jun. 30, 1988).

Rangeland Management: More Emphasis Needed on Declining and Overstocked Grazing Allotments (GAO/RCED-88-80, Jun. 10, 1988).

Restoring Degraded Riparian Areas on Western Rangelands (GAO/T-RCED-88-20, Mar. 1, 1988).

Federal Land Management: Limited Action Taken to Reclaim Hardrock Mine Sites (GAO/RCED-88-21, Oct. 21, 1987).

Public Lands: Interior Should Recover the Costs of Recording Mine Claims (GAO/RCED-86-217, Sept. 10, 1986).

Public Lands: Interior Should Ensure Against Abuses From Hardrock Mining (GAO/RCED-86-48, Mar. 27, 1986).

Senator BUMPERS. Mr. Duffus, I thank you very much for your testimony.

I do not know what we would do without GAO. I am a big proponent.

When I was Chairman of the Legislative Appropriations Committee, I always tried to honor GAO's requests to make sure you had the manpower to do these kinds of detailed studies without which Congress is totally at the mercy of the executive branch.

And that is not to say that your reports are infallible. Maybe this one is not. But it is very helpful to us who are considering bills like S. 11, which is not perfect either. It is very helpful to us to have you come in with a fairly definitive statement about what is actually going on.

Instead of being livid about the GAO report, the BLM ought to take your report to heart and try to figure out what they can do to make sure they do not get other reports as critical as this one.

And if I were Mr. Jamison—whom I know and like very much and I know he wants to do a good job—if I were he, I would look at this report very carefully, and I would call my field people in and I would say we are not going to have any more reports like this. We are stewards of the public domain. You have grave responsibilities and here is the deal, and here is what I am expecting out of you.

And, you know, the desert tortoise may not be the most important thing in the world, but still there is obviously either a disdain or an indifference for the endangered species in the desert, according to your report.

So, I am not going to belabor it except to say to you that we really appreciate.

Just one question. Do you have any idea, has the Fish and Wildlife Service done a census count of the desert tortoise?

Mr. DUFFUS. I would ask one of my colleagues if they are aware of that.

Senator BUMPERS. Does anybody know the answer to that?

Mr. LUCKROTH. BLM does inventory work in the desert, and it is on a sample basis. From that, they project the populations. That has been done just recently.

Senator BUMPERS. Do you know what the projection was?

Mr. LUCKROTH. I know that it showed a very serious decline in number of desert tortoises since the last inventory.

Senator BUMPERS. Since 1979 a 50 percent reduction, is that what you said?

Mr. DUFFUS. Yes, sir.

Senator BUMPERS. That is a staggering figure, Mr. Duffus. I do not have any questions for you right now. We may submit some to you for the record, but I certainly appreciate all of you gentlemen coming.

Mr. DUFFUS. We appreciate your remarks and we will be glad to respond.

Senator BUMPERS. Thank you.

I will not go to the five-minute rule until Mr. Ward, Director of the California Department of Conservation, testifies.

Mr. Ward, we thank you very much for coming out to the East Coast to be with us. We look forward to hearing your statement.

STATEMENT OF RANDALL WARD, DIRECTOR, CALIFORNIA DEPARTMENT OF CONSERVATION

Mr. WARD. Thank you, Mr. Chairman and Senator Cranston as well.

I want to apologize first for the Secretary of Resources who has joined this committee in the past, Mr. Gordon Van Vleck, for being unable to be here today.

As you indicated, Senator, my name is Randy Ward. I am the director of the California Department of Conservation, and I will in the interest of brevity keep my remarks probably under five minutes.

Thank you for the opportunity for California to address their concerns regarding Senator Cranston's S. 11, the California Desert Protection Act.

Let me first indicate, we recognize that protection of the desert is both a laudable and necessary objective. However, the legislation before you is extremely complex and the State of California, while neutral on the measure, has serious concerns, and certainly they should not be viewed as flat-footed on the issue.

I am sure you have already heard a litany of problems our state faces and will continue with your panels yet this afternoon with the bill in its current form, and I might add that, Senator Bumpers, we have worked very closely with your staff in developing really some complex maps that deal with the diverse heating resource issues that we find affected by the bill as well as with Senator Cranston's staff and have found them to be most professional and healthy.

Not to minimize these other issues, but in the interests of time I would like to address two issues that received insufficient attention, in my view, so far, management of wildlife in the desert and compensation for state lands.

In much of the desert the California Department of Fish and Game is charged with managing wildlife resources. Much of this management is done through cooperative agreements between the Department of Fish and Game and the BLM.

The results of this management have been beneficial to both wildlife and to Californians.

We believe the BLM is committed to wildlife protection, and the issue is more adequately addressed to budgetary resources.

Through long years of hard work by Fish and Game and dedicated volunteers the desert bighorn sheep has been brought back from the edge of extinction to respectable self-sustaining numbers.

Cornerstones of this effort have been aerial and motorized reintroduction of sheep, construction of sheep watering facilities called guzzlers, and the regular maintenance of these facilities.

The bulk of this work has taken place in areas that would become wilderness or national park under S. 11.

Also, under S. 11 most of these activities would be discretionary if not banned.

I am also informed by the Department of Fish and Game that the National Park Service preempts state management of wildlife unless the act creating parks or other designations is specific as to the state's continued management authority and allowable activities such as wildlife management, fishing and hunting.

The National Park Service has as a guiding philosophy that park areas should be returned to as natural a state as possible.

The guzzlers that support the bighorn sheep populations are not natural, nor are there spring and stream modifications that support quail, chukar and many other wildlife species.

In fact, the draft management plan for the Death Valley National Monument, prepared by the NPS, calls for the removal of such "alteration of natural flows."

The same plan admits that under NPS administration, the bighorn sheep population in Death Valley has suffered a steady decline.

Bighorn sheep are not the only wildlife success story in the desert. Again, thanks largely to the Department of Fish and Game and volunteer groups of Californians and installed water improvements, the East Mojave area has become perhaps the premier quail hunting area in the California desert.

Also, chukar, introduced by Fish and Game, has become a popular desert species with California hunters. We estimate that over 424,000 hunter days are spent in the California desert.

If much of the desert's prime hunting area becomes national park and thus closed to hunting, how will this opportunity be replaced? Will the species, not just game, but a host of desert species depending on man-altered water sources, be supported by the National Park Service and will water sources on wilderness lands be maintained?

If S. 11 passes, will the desert bighorn, which has been restored through the efforts of our citizens and the Department of Fish and Game go the way of the Death Valley herd?

The State of California does not see currently any guarantees in the bill that it will be allowed to continue to manage these wildlife resources. The state needs motorized access to 300 of these guzzlers that I just spoke about.

There are recent examples in bordering states where the continued need for mechanized access has been denied on newly created wilderness areas and, therefore, created substantial wildlife management problems and, as a result, the Western Association of Fish and Wildlife Agencies, which is basically the collections of agencies within the western states, consistent with our Department of Fish and Game, have taken opposition on the bill lacking specific language and clarification with regard to wildlife management.

The second issue that I consider significant and want to bring before the committee today is the state land held in trust for our state through—for the Teachers' Retirement System that would be affected by Senate bill 11.

It would allow the—typically the state would be able to exchange these parcels for BLM land of comparable value. However, the BLM in this case has indicated that there are not comparable lands from which to exchange for.

Of the state parcels affected by the bill, we have identified 216 parcels with recognized mineral values. These minerals include gold, silver, limestone, tungsten and manganese. 160 of these parcels that I mentioned that are state parcels contain minerals defined by the Department of Defense as strategic.

The potential state revenue laws directly impacts the State Teachers' Retirement System which receives the revenue benefit from these lands. That retirement system currently has an unfunded future liability of approximately $10 billion and also today you have, I believe, written testimony from a representative of the Retired Teachers' Association, who is here as well if you have any questions of him.

In closing, I would emphasize our current support for the BLM desert plan which involved a substantial public participation process, but in so doing indicate we are willing to work with this committee in the context of your deliberations on this measure.

The wildlife biologists, our hunters, recreationists and a myriad of other groups that we hear from are certainly concerned about S. 11, which necessitates our continued participation.

I ask that you carefully consider some of the thoughts and recommendations that I have presented. Thank you very much for your indulgence.

[The prepared statement of Mr. Ward follows:]

RANDALL WARD, Director
California Department of Conservation

Subcommittee on Public Lands, National Parks and Forests
Chairman Dale Bumpers

October 2, 1989
2:00 p.m.

Mr. Chairman, Senators, my name is Randall Ward, and I am Director of the California Department of Conservation. Thank you for the opportunity to speak to you today about the concerns of the State of California with S.11, Senator Cranston's Desert Protection Act. Let me first indicate we recognize that protection of the Desert is both a laudable and necessary objective. However, the legislation before you is complex, and the State of California, while neutral on the measure, has serious concerns about specific aspects of the bill.

I am sure you have already heard a litany of the problems our State faces with the bill in its current form: mineral availability, recreational access, loss of grazing, and many others.

Not to minimize these issues, but in the interests of time, I would like to address two issues that have received insufficient attention so far: Management of wildlife in the desert and compensation for State lands.

In much of the Desert, the California Department of Fish and Game is charged with managing wildlife resources. Much of this management is done through cooperative agreements between the Department of Fish and Game and the Bureau of Land Management. The results of this management have been beneficial both to wildlife and to Californians. We believe that the BLM is committed to wildlife protection.

Through long years of hard work by Fish and Game and dedicated volunteers, the Desert Bighorn Sheep has been brought back from the edge of extinction to respectable, self-sustaining numbers. Cornerstones of this effort have been aerial and motorized reintroduction of sheep, construction of sheep watering facilities, called "guzzlers", and the regular maintenance of these facilities. The bulk of this work has taken place in areas that would become wilderness or National Park under S.11; under S.11, most of these activities would be discretionary, if not banned, under the Wilderness Act. Also, I am informed by the

Department of Fish and Game that the National Park Service preempts State management of wildlife, unless the Act creating parks or other designations is specific as to the State's continued management authority and allowable activities such as wildlife management, fishing and hunting.

The National Park Service has a guiding philosophy that park areas should be returned to as natural a state as possible. The guzzlers that support bighorn populations are not "natural", nor are the spring and stream modifications that support quail, chukar and many other wildlife species. In fact, the Draft Management Plan for Death Valley National Monument, prepared by the National Park Service, calls for the removal of such "alteration of natural flows". The same plan admits that, under NPS administration, the bighorn sheep population in Death Valley has suffered a steady decline.

Bighorn Sheep are not the only wildlife success story in the desert. Again, thanks largely to Fish and Game, volunteer groups of Californians, and installed water improvements, the East Mojave area has become perhaps the premier quail hunting area of Southern California. Also, chukar, introduced by Fish and Game, has become a popular desert species with California hunters. We estimate that over 424,000 hunter days are spent in the California Desert.

If much of the Desert's prime hunting area becomes National Park, and thus closed to hunting, how will this opportunity be replaced? Will the species, not just game, but a host of desert species dependent on man-altered water sources, be supported by the National Park Service, and will water sources on wilderness lands be maintained? If S.11 passes, will the Desert Bighorn, which has been restored through the efforts of our citizens and Department of Fish and Game, go the way of the Death Valley herd?

The State of California does not see any guarantees in the bill that it will be allowed to continue to manage its wildlife resources. The State needs motorized access to the nearly 300 water facilities that would be impacted by the bill; it needs continued motorized access for sheep reintroduction and management; and it needs motorized access to patrol sheep range against poachers.

There are recent examples in Arizona and New Mexico where the continued need for mechanized access was denied on newly-created wilderness areas and, therefore, has created substantial wildlife management problems. Again, such activities may be construed to be allowable under the Wilderness Act, but it is our position that State management of the State's wildlife resources should be explicitly addressed in the bill.

Another major problem of the bill is its treatment of State lands. Some 661 parcels of State land, held in trust for our State

Teacher's Retirement System, would be affected by S.11. S.11 would allow the State to exchange these parcels for BLM lands in the State of equal value. However, the BLM has said that there are insufficient comparable lands available for exchange.

Of the State parcels affected by the bill, we have identified 216 parcels with recognized mineral values. These minerals include gold, silver, limestone, tungsten and manganese. 160 of the State parcels contain minerals defined by the Department of Defense as "strategic". The potential State revenue loss directly impacts the State Teacher's Retirement System, which receives the revenue benefit from these lands. That retirement system currently has an unfunded liability of approximately $10 billion.

In closing, I would emphasize our current support of the BLM Desert Plan which involved a substantial public participation process, but in so doing indicate that we are willing to work with this committee in the context of your deliberations on this measure.

The wildlife biologists, our hunters, recreationists and myriad other groups, will be watching S.11 to see that our State's concerns are addressed. I ask that you carefully consider the recommendations that I have presented, and I thank you for your time.

Senator **Bumpers**. Does California have a bighorn sheep hunting season?

Mr. **Ward**. I think there has been in one area, but that is secondhand information. I can get you specific information on that.

Senator **Bumpers**. I wish you would. I mean, if that population is declining, I do not understand why California would permit them to be taken.

Mr. **Ward**. It is actually proliferating. It was declining in Death Valley, which was the area that I indicated was not being allowed to have any of the man-altered forms of water facilities so that these bighorn sheep can proliferate.

In fact, I think if your staff will recall, the maps that we produced that show a series of guzzlers that are basically in the center of the East Mojave proposed national park are really—they show proliferation of the bighorn sheep in that area as a result of those manmade watering facilities.

And I might add, Senators, these are maintained largely by volunteer groups that go in and maintain these. It is certainly not the kind of activity that you are going to go in with a backpack and a pick and shovel.

Senator **Bumpers**. My last question pertains to these mineral areas that apparently belong to the California Teachers' Association—is that correct?

Mr. **Ward**. They are managed through the State Lands Commission, which is an agency of the State of California, but essentially the primary benefit of any revenues that accrue.

Senator **Bumpers**. That is the Retirement System?

Mr. **Ward**. That is correct.

Senator **Bumpers**. There are 200-plus areas?

Mr. **Ward**. There are over 600 that are affected by the act, but we have identified 220 that have mineral potential on them.

Senator **Bumpers**. Are you talking about areas?

Mr. **Ward**. These are parcels.

Senator **Bumpers**. How many parcels?

Mr. **Ward**. 221, I believe.

Senator **Bumpers**. What is the approximate size?

Mr. **Ward**. 640 acres per parcel.

Senator **Bumpers**. Do they have existing mineral claims on them right now?

Mr. **Ward**. They may well have claims, but in most cases they are not developed, and I might add our Division of Mines and Geology, which is essentially the state's counterpart to the U.S. Geological Survey, goes in and performs the scientific geological analysis of what is in the area.

Much of our work has yet to be done. We have probably only classified which is the scientific term used for determining what minerals exist about 40 percent of the area covered by S. 11, so there remains a substantial portion of the area that has yet to be mapped.

In other words, the 221 parcels I am speaking to you about today could potentially grow, and I think quite possibly will.

Senator **Bumpers**. And so you do not know how many of those parcels have claims staked on them?

Mr. **Ward**. No.

Senator **Bumpers**. You said about 200 of them belonged to the state?

Mr. **Ward**. There are 221 that have mineral or the state either has full title to the land or royalty interests or a 16th royalty interest. The majority of them we have full title, thereby we would receive 100 percent of any royalty interest.

Out of 221, 160 as a side note are on the strategic minerals list. In other words, I guess by definition, those are minerals that cannot be found in stable countries and outside the domain of the United States.

Senator **Bumpers**. Does the State of California have a claim staking law where people can go and take claims like the Federal Government?

Mr. **Ward**. Not to my understanding. It is handled through an administrative process involving the State Lands Commission, and it goes out to bid.

Senator **Bumpers**. Senator Cranston, I apologize. I have not called on you to ask questions. Do you have any questions of Mr. Ward?

Senator **Cranston**. No, I do not. Thank you very much.

Senator **Bumpers**. Thank you.

Mr. Ward, we may submit a couple of questions to you for the record.

Now, we will go to the five-minute rule.

Our first panel is Robert Reveles, California Mining Association, Martin G. Jaynes, Izaak Walton League of America, Patrice Davison, Running Springs, California, Douglas Scott, Conservation Director of the Sierra Club, Brooks Yeager, National Audubon Society, and Dr. W. Thomas Goerold, Chief Economist for Energy and Mineral Resources of The Wilderness Society.

Senator McClure and Senator Wallop wanted to be here today for this hearing, but could not be, but they have statements. Their statements and questions of witnesses will be inserted in the record as well as my own opening statement.

According to my list, the first witness is Mr. Reveles.

Mr. Reveles, I hope you can summarize, but we are very pleased to have you.

STATEMENT OF ROBERT REVELES, CALIFORNIA MINING ASSOCIATION, ACCOMPANIED BY DR. WILLIAM P. LEEDY, GEOLOGIST

Mr. **Reveles**. Thank you. I will try to summarize.

My name is Robert Reveles. I am Vice President of Home State Mining Company, but I really wanted to share a perspective with the committee, Senator.

I come from a perspective as a community activist and long time Congressional staff assistant on the House side, and so I have a deep and abiding commitment to the democratic process, and that is really one of the more immediate concerns that strikes us in the money community about what we have facing us today in S. 11.

But setting that aside, we also do feel we provide a useful product for society. We provide 65 commodities out in the desert.

California is actually the number one non-fuel mineral producing state in the nation, and half of that production comes from the desert.

We also feel that we provide not only for immediate gratification of needs, but also for future gratification of needs.

There are three very significant reports that have been published in the last year. The L. A. 2000 Committee Report, the California Vision 2010 and the SCAG reports, Southern California Association of Government reports, all documenting an upcoming crisis in trying to upgrade and improve the infrastructure in the urban communities.

Now, those urban communities are going to be populated essentially by a new majority comprised of Hispanic Americans, African Americans and Asians, all who need to take on the responsibility of upgrading those infrastructures and providing affordable housing.

Those industrial and construction materials will be coming as they do come from the desert area, and so that is an area of concern to us.

There are other concerns in the legislation that I do not simply have time to dwell on, but I would like to touch on the question of access is one that will immediately foreclose any exploration if we do not provide accurate data for the committee's deliberations.

We have had a geologic team that has looked at 2 percent of the area comprised in this district, Senator, and we found some dramatic oversight by the drafters of the legislation that completely overlooked not only historical mining activity, but current ongoing mining operations and we would like to make that material available to the committee because we think it is important for you.

We want to be a positive participant in the process, but we also feel that we also are very resourceful. We produce all of this product from one-tenth of 1 percent the land area available for mining. That is fairly significant.

In addition, we think that valid existing rights language is good, yes, but in actuality, Senator, historically in practice it simply has not assured the continuance of mining.

In the Death Valley there were some significant operations that were in place, some four or five, and they were assured that they could exercise valid existing rights.

In point of fact, the conditions placed on them prevented any materials from being brought into the area, any sights for milling facilities, and no way of accessing the product.

So, all in all, we are pleased that there is some gesture being made to accommodate mining, but in point of fact history has shown us that it simply has not worked out that way.

I would like to also, Senator, with your permission, enter the full statement in the record and make available to the staff for any questions Dr. Leedy who is here in the audience and has some dramatic illustrations, and I would like to turn over, with your permission, the rest of my two or three minutes to him for that purpose.

[The prepared statement of Mr. Reveles follows:]

TESTIMONY
OF
ROBERT REVELES
VICE PRESIDENT, GOVERNMENT AFFAIRS
HOMESTAKE MINING COMPANY
FOR THE CALIFORNIA MINING ASSOCIATION

ON

S.11, THE CALIFORNIA DESERT PROTECTION ACT OF 1989

BEFORE

SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

OCTOBER 2, 1989

Mr. Chairman and members of the Subcommittee, I am Robert Reveles, Vice President, Government Affairs, of the Homestake Mining Company. I am testifying today on behalf of the major mineral producing companies operating in California, members of the California Mining Association. Accompanying me is William P. Leedy, Exploration Geologist for the Kerr-McGee Corporation, who will be available to answer questions about the geology of the area.

We in California are proud of our industry's status as this nation's largest non-fuel minerals producer. Production includes aggregates, barite, borates, clays, diatomaceous earths, gypsum, dolomite, limestone, natural earth products, perlite, potash, soda ash, precious metals, pumice, lanthanides, talc and tungsten. Over half of California's 1988 production of $2.8 billion came from lands and minerals in the California desert area. Mining operators in California have set the pace in addressing and meeting legislative, regulatory and policy matters concerning environmental, reclamation, land-use, tax and related issues.

My company, Homestake, is one of the oldest domestic mining companies, and has long had active interests in the California Desert, including those areas affected by S. 11.

Homestake's situation captures the essence of the problem faced by all mining companies under S. 11: we are a company with many interests in the Desert, and a historical commitment to providing jobs as well as the highest level of environmental protection. We hope to develop our desert interests, but would be precluded from access to properties we currently have under consideration if S. 11 were to pass in its current form.

As I begin to address the industry's major points of concern with this legislation, let me strongly clarify three major aspects of our position: First, California's mineral producers are not anti-wilderness. In fact, we support the BLM Desert Plan process and the resulting designation of more than two million acres of wilderness, to the extent those recommendations reflect the findings of mineral surveys as provided under FLPMA.

Secondly, and most simply, there isn't much of the desert available now for mineral exploration and development. The desert's rich geology does not recognize political boundaries. Half of the 25 million acres of the desert area is already precluded from mineral entry by military reservation, national monument and state park status. Of the 12.5 million acres administered by the BLM, another 2 million acres is proposed for wilderness. In fact, only 39 percent of the entire desert area is now available under the BLM Desert Plan for multiple uses--which includes resource development, grazing, and motorized recreation. Under S. 11, lands available for multiple use in the desert would be reduced to only 17 percent.

Thirdly, California's mining industry has proven it is a good neighbor to the desert environment. The current $1.5 billion in annual minerals production is produced from less than 10,000 acres of surface disturbance. This is less than a tenth of a percent of the land currently available for mineral development in the desert area. California's mining industry is among the most regulated in the world. The combination of California state regulations with the operating restrictions specified in the BLM Desert Plan provide a high degree of environmental protection.

Extraordinary financial commitment and years of effort are required for the assessment of environmental impact and design of appropriate mitigation, before any ore can be moved or site developed.

Mitigation has become a large part of any mining activity in the desert. Standard mitigation measures include fencing, dust containment, air and water quality monitoring and reclamation bonding. Extraordinary mitigation measures are demanded of the desert mining industry as well. We shoulder special requirements to protect or enhance wildlife species, such as watering facilities for bighorn sheep. Mine operators have had to purchase property as habitat for protected desert tortoise to offset the impact of mining activities on tortoise range (at the ratio of three or more acres of mitigation for each acre disturbed). Employees are trained to remove tortoise from access roads and other mine property. Companies have been required to make financial contributions of $50,000 to $200,000 to facilitate land exchanges or purchases for habitat preserves. These sometimes have been explicit mitigation requirements, and sometimes charitable contributions. Several companies have dedicated facilities or funds to study desert vegetation, archeological data, wildlife, or otherwise provide baseline data on the desert environment.

The mining industry urges that you consider two primary concepts in any consideration of California desert land withdrawals that depart from the recommendations of the BLM Desert Plan: The first is the importance of continuing mineral access in the desert. The second is the value of continuing to follow the process for evaluating wilderness study areas established by the Congress in section 603 of the Federal Land

Policy and Management Act.

Mining in the California Desert now produces over $1.5 billion in diverse mineral commodities annually. More than 65 mineral commodities are produced in the desert, including many of strategic importance. These commodities are essential for building materials, industrial uses, aerospace applications, batteries, electronics, and exciting future prospects such as the superconductor.

The desert area is among the country's richest, most diversely mineralized regions. Even after years of mining activity in the region, the location and extent of recoverable mineral deposits is still only sketchily known. It has taken years to conduct the limited mineral surveys on the two million acres proposed as wilderness in the BLM Desert Plan. While the desert area has proven, major mineral potential, there is no consensus on site-specific geological information on that vast area--as indeed, there is no undisputed geological agreement on any large region. We have recently been informed that the Bureau of Mines has just embarked on a year-long assessment and data search of the desert area. That information should be considered in documenting the impacts of this legislation. However, only a mining company has the ability to invest the millions of dollars necessary for the physical exploration necessary to prove a specific deposit's location and economic viability.

It has been argued that S. 11 excludes areas of historic mineral significance. This is not the case, but it also misses a critical point. In the heavily mineralized desert, the exclusion of areas of mineral significance could be done only on the basis of careful geologic survey, not by merely drawing lines on a map. A case study has been conducted by Mr. Leedy, who has extensive experience working as a geologist in the area. This case study of the greater Panamint Valley area shows that the S. 11 acreage would result in substantial conflicts with current uses, claims activity, and, most importantly, potential mineral development. As an example, more than 2 million ounces of gold could be produced from the case study area, if it remains open for exploration and development, while adjoining sensitive areas are protected by the BLM proposal as wilderness.

The case study is contained in "Mining in the California Desert", a Briefing Book prepared by the Desert Conservation Institute, an educational project of the California mining industry, which I would like to submit for inclusion in the hearing record. Mr. Leedy is available to answer questions about the case study or more generally about the geology of the desert area and the potential for mineral development.

As I mentioned, more than half of the 25 million acre California Desert is already withdrawn from mineral entry. If it were possible to pinpoint valuable mineral deposits in the remaining area, the Congress could logically set aside those areas and create wilderness or otherwise restrict mineral entry on the rest. We are far from being in that position. Data is scattered, incomplete and inconsistent, and future commodity demands and as yet undiscovered applications simply are not known.

Historically, companies such as Homestake rely in the first instance on access by small miners and prospectors to discover potential properties. These prospectors rely on their knowledge of promising geologic structure and access to a large area in order to find deposits. They invest much shoe leather and sweat equity identifying prospects that are strong enough to interest a large company in proving or developing the deposit. We cannot afford to limit so sharply the territory in which this prospecting can take place. S. 11 would withdraw much of this area without any systematic investigation of historic or existing mineral activity, let alone an evaluation of the potential for future activity.

Mining has been an important contributor to our workers and their communities in the desert, as well as to the economy of Southern California and the nation. Mining jobs are the mainstay of many communities in the area. According to an analysis done for the mining industry (and included in the

Briefing Book), S. 11 could result in the long-term loss of about 17,000 jobs in the desert area, and over 20,000 throughout Southern California. Not only would personal incomes fall, and many families face economic devastation, but their communities would suffer as well, with losses in tax revenue and the ability to provide needed services.

Existing desert mines are projected to be depleted over time, probably in less than 50 years, if there is no possibility of further exploration. Resulting shortages would be crippling to the economy of Southern California and the nation. Drastic price increases would translate into pressures on low-income housing and infrastructure replacement so critically needed in the region. Increased dependence on foreign sources of basic materials such as cement, the relocation of industry closer to the source of needed mineral materials, and the resulting decline of the industrial base of Southern California, would have a devastating impact on the regional economy.

One of my personal concerns is the reduction in economic security and employment opportunities that may result for minorities and the residents of these smaller towns in the desert. I grew up in a small mining community in Arizona. The opportunity provided by the mines was the key to my family's welfare. Already I am disturbed by the lack of opportunities

available to young Hispanics in Southern California. If the mining industry can no longer offer jobs, because exploration and development in the desert are curtailed; if the price of construction materials escalates because mineral production is restricted and housing becomes even more scarce and expensive--where will those opportunities be?

The proponents of S. 11 often argue that mineral production in the desert will be protected by the language, "subject to valid existing rights". Again, there is a very helpful analysis of this language in the Briefing Book I have submitted for the record, but you should be aware of the historic precedent in using similar language in the Mining in the Parks Act. This Act was adopted in 1976, ostensibly to protect mineral operators in Death Valley National Monument. At that time, there were four large mining operations in the Monument and several smaller ones, as well as numerous individual claims in remote areas. Only one was near a visitor point of interest. Today, not a single mine is actively producing industrial minerals within Death Valley. All unpatented mining claims have been contested. The process of determining valid rights has been complex, costly, and uncertain. Even where valid existing rights can be established, the legislation does not provide for access for machinery or supplies, for the location of mill sites or other needed facilities, or for a means to remove the product--thus rendering these so-called "valid existing rights" meaningless.

If I may take a moment, I think it is important to step back from the specific concerns of the mining industry and reaffirm the broad base of all of these concerns about the basic ramifications of S.11: This legislation is another dangerous departure from the process established by the Congress to consider wilderness withdrawals. Section 603 of the 1976 Federal Land Policy And Management Act ("FLPMA") directed the Bureau of Land Management to evaluate wilderness study areas and to make recommendations to the Congress on what lands were to be made wilderness. The unique values of the California desert were given special attention in that Act, and the Secretary of the Interior directed to prepare a long range comprehensive plan for the protection of public lands within the California Desert Conservation Area. That plan was to be anchored in the principles of multiple use and sustained yield which are the framework of FLPMA. These are criteria for ultimate decision-making, as well as study. This legislation flies in the face of FLPMA and threatens to establish a precedent which would make a mockery of that entire process.

The Bureau of Land Management process in California was done with extensive public participation and resulted in a document generally known as the California Desert Conservation

Area Plan. All interested members of the public and locally elected officials had a chance to participate in the process, review the Bureau of Land Management conclusions and challenge them adminstratively or in court. In 1980 when the Plan was done, the general consensus of all groups, including the environmental community, was that the process had been fair and thorough. The Plan was widely recognized as a balance of all interests. The mining industry was not happy with the 1980 plan, but was prepared to live with the two million acres of wilderness it proposed. The Bureau of Land Management proceeded to complete the next step: full evaluation of the Plan's wilderness recommendation, including mineral surveys. This recommendation would ordinarily become the basis for any wilderness legislation.

The Bureau of Land Management's recommendations are proceeding within the timetable that Congress established.

S. 11 represents a strikingly different legislative proposal--one that would include as wilderness and parks eight million acres of land, including hundreds of thousands of acres lacking any wilderness character whatsoever. No justification has ever been provided for the inclusion of many of these areas. They are not supported by the careful analysis or the recommendations from the open deliberative BLM process. Rather, S. 11 appears to be based on arbitrary map drawing.

S. 11 also departs from past congressional actions in designating lands as parks and national wilderness which lack the essential wilderness characteristic set out in the Wilderness Act: having primeval character and influence, offering opportunities for solitude and being untouched by man's activities. Much of the land proposed to be included is indistinguishable from tens or hundreds of millions of acres of public lands, certainly worthy of being carefully managed, but lacking in wilderness values.

The California mining industry gives its full support to the appropriate protection of wilderness in the California desert, as developed by the Bureau of Land Management's public planning process and congressionally directed criteria. The wilderness recommendations in that Plan are supported by detailed and voluminous documentation, including mineral surveys which are to be considered in any final decision on wilderness status.

The consequences for the mining industry, and for the communities and the local and regional economies so dependent on mineral production, are so great that any departure--including the wholesale changes contained in S. 11--cannot be justified, and should not be adopted.

Thank you for the opportunity to testify on behalf of the California mining industry.

In summary, the case has simply not been made for violating the compact to which the public agreed in adopting the management plan. Moreover, the expanded new land areas must receive the same careful scrutiny for mineral resources mandated by FLPMA.

Senator BUMPERS. Please proceed, Dr. Leedy.

STATEMENT OF DR. WILLIAM P. LEEDY, GEOLOGIST, KERR-McGEE

Dr. LEEDY. We prepared a case study in the northern portion of the Mojave Desert. The area for reference purposes, and I will be brief about this, lies between a portion of Death Valley National Monument and the China Lake Naval Weapons Center.

These areas are currently closed to mineral entry. The areas remaining open are shown in the uncolored pattern here.

The effect that this legislation will have on this area is shown by this first overlay.

Basically this overlay shows that 53 percent of this area that is currently open for mineral entry right now will be closed or locked up.

To evaluate this area there are several means possible. Mineral studies have been done, some of these by the U.S. Geological Survey, others by the U.S. Bureau of Mines. I will not go into detail of those studies.

Another means of evaluating the mineral potential of this district is by past history and production of the area. Again, because of time constraints, I will not go into that area.

What I would like to demonstrate, though, is what the current activity and interest is in this region.

On this overlay here, the areas shown by the gold coloration are areas of valid lode mining claims, lode and placer mining claims. There are currently over 3,000 lode claims within this area.

Also on this map are shown the locations of the various mining operations which have been identified which are identified with various symbols here.

These operations have entailed federal expenditure of monies. Most of the exploration at the present time is directed toward precious metals exploration.

The current estimate or reserves established today is in excess of 400,000 ounces of gold from this region with a value of over $150, $160 million.

Our concerns would be that, number one, the mineral potential of this region has not been addressed by the legislation and that also, as I say, the valid existing rights of these properties are not being properly addressed.

Whether these operations would be allowed to continue or whether these lands would be bought out or exchanged is left undecided in a very uncertain fashion.

Senator BUMPERS. You have one other overlay, do you not?

Dr. LEEDY. It is defined by the government studies. Basically I would like to conclude with this overlay here. We do see legislation.

Senator BUMPERS. Thank you very much.

Mr. Jaynes.

STATEMENT OF MARTIN G. JAYNES, CALIFORNIA DIVISION, IZAAK WALTON LEAGUE OF AMERICA

Mr. JAYNES. I am here representing the California division of the Izaak Walton League of America.

I would like to stop at this point and make it clear I am representing California and no other states that belong to the Izaak Walton League.

I am a past president of the Whittier chapter, and I am currently serving as the State Division Chairman on Soils and Public Lands.

In May of 1989 at the California divisions annual state convention, a resolution opposing Senate bill 11 was passed. This is the third time in as many years.

The Izaak Walton League of America conservation policies on public lands managed for multiple use are general, but fundamental expressions of the league. In general principle, they apply to all lands owned by the federal government.

Public lands are a perpetual trust that must be administered for the long-range benefit of all people.

Public lands should be managed so as to protect or enhance the resource base.

Under the concepts of sustained yield and multiple use, the public lands should be managed for a mix of purposes including watershed protection, soil and forest conservation, wildlife habitat improvement, wilderness and outdoor recreation.

User advisory boards should be truly advisory, not administrative in nature and should equally represent all land users' interests, including outdoor recreation and wildlife.

All public lands should allow for a range of outdoor recreation opportunity consistent with other values and uses.

Governments should assure public access to public lands.

I was asked to testify here on wildlife. I am not an expert or a professional. I consider myself a generalist. I have, however, spent a vast amount of time volunteering on water projects, exploring, guiding and pursuing personal interests in the California desert.

Our major concerns with this Senate bill is the negative effects on wildlife and artificial water sites. We have approximately 1,500 small wildlife guzzlers, 55 to 60 large wildlife guzzlers, and nearly 2,000 underground springs.

The majority of these water sites are maintained by volunteer groups through the cooperation and leadership of the BLM and the Department of Fish and Game.

By personal observation I can testify that this system is working. I have seen more quail, chukar, coyotes, raptors, cottontail, jacks, deer and rodents in the past two years than I have ever seen before.

I feel this is amazing considering the almost drought conditions of Southern California.

We are concerned with the limited and non-access we would have if this bill passed. The areas set aside as wilderness would prohibit any access by mechanized means.

The California desert has inherent dangers and is not an environment that can be safely traveled on foot or horseback.

The equipment needed to repair these water sites is too heavy to transport other than by mechanical means.

Also, it is general knowledge and standard practice when an area is changed into a designated wilderness, all signs of man must be removed.

This bill also calls for major national park designated areas. Again, this causes concern to us with regard to wildlife habitat improvement.

Again, we have the same water problem. The National Park Service has not demonstrated the willingness to cooperate with volunteer groups when it comes to manmade water sites.

According to reports from the Society of Conservation of Bighorn Sheep, the National Park Service has refused to allow them to perform any water conservation projects in Joshua Tree National Monument.

They also report the bighorn sheep are almost extinct in Joshua Tree, and in Death Valley the counts have gone from 2,000 down to 300. This report is confirmed by the 1988 Environmental Impact Study of the National Park Service. In areas managed by the BLM and supported by volunteers the count is up 40 percent.

This proposed legislation would put undue stress on the wildlife of the California desert who depend on manmade water sources and would definitely result in the loss of these creatures forever.

The multiple use concept used by the BLM seems to be the best approach to wildlife management because it also means multiple participation by interested conservation groups. We should also realize if this bill passes, we will eliminate the California Department of Fish and Game's ability to manage habitat for wildlife species within the parks.

In summation, we sometimes speak of man as having evolved from nature and neglect the fact that we are still a very vital interactive part of nature. In science there is the Heisenberg uncertainty principle. This states you cannot observe anything without affecting it as applied to man and his existence on earth.

We cannot exist without affecting other aspects of nature. We cannot separate ourselves from any part of our planet, regardless of how massive or how minuscule.

Watch the bighorn sheep crop the plant they eat. Obviously, they are surviving, not destroying. Let man do the same thing to that very same plant, and he is destroying it.

The difference is that man has the ability, the reasoning, the capability, the understanding, the intelligence to anticipate and predict the long-term effects of what he does.

I believe it is within this capability that has influenced our continued existence or extinction. Regardless of our fate, this, too, is nature in action. All of man's actions are within nature's realm. Because our intellect and tools are more sophisticated does not exclude us from nature.

Mother nature does not really care or make value judgments on any of her creations. She just lets them continually change.

Man makes the value judgment and tries to keep things as they were. Should we not learn from her?

As a part of nature, we are not only responsible for but also entitled to a part of our environment. It is easy for some to see how we are entitled to the air we breathe, the food we eat, and the ground we live on. However, when it comes to our pleasures or recreation, it is more difficult.

Let us not throw away years of planning, millions of hours of professional and volunteer labor, millions of dollars and all the value judgments involved in developing the California desert plan.

The California division of the Izaak Walton League strongly opposes the California Desert Protection Act.

Thank you for allowing us to participate in this hearing, and we urge you to increase your testimony basis by conducting local hearings so more interested and devoted California conservationists can participate. Thank you very much.

[The prepared statement of Mr. Jaynes follows:]

The Izaak Walton League of America

DEFENDERS OF SOIL, WOODS, WATERS, AIR, AND WILDLIFE

U. S. Senate Commitee on Energy and Natural Resources
testified before the Subcommitee on Public Lands, National
Parks and Forests.
S.D. 308 Dirksen Senate Office Building,
Washington, D. C. 20510

On S-11, a bill "To provide for the protection of public
lands in the California Desert"
The Honorable Dale Bumpers, Chairman

October 2, 1989

Mr. Chairman and Committee Members:

Good Afternoon. My name is Martin G. Jaynes. I am here representing the California division of the Izaak Walton League of America. I am a past president of the Whittier chapter and I am currently serving as the State Division Chairman on Soils and Public Lands. In May of 1989, at the California divisions annual state convention, a resolution opposing Senate bill 11 was passed. This is the third time in as many years.

The IWLA national conservation policies on public lands managed for multiple use are general but fundamental expressions of the League. In general principle, they apply to all lands owned by the federal government.

Public lands are a perpetual trust to be administered for the long range benefit of all the people.

Public lands should be managed so as to protect or enhance the resource base.

Under the concepts of sustained yield and multiple use, the public lands should be managed for a mix of purposes including watershed protection, soil and forest conservation, wildlife habitat improvement, wilderness and outdoor recreation.

User advisory boards should be truly advisory not administrative in nature and should equally represent all land user interests, including outdoor recreation and wildlife. All public lands should allow for a range of outdoor recreation opportunity consistent with other values and uses. Government should assure public access to public lands.

I was asked to testify here on wildlife. I'm not an expert or a professional. I consider myself a generalist. I have however, spent a vast amount of time volunteering on water projects, exploring, guiding and persuing personal interests in the California desert.

Our major concerns with this Senate bill is the negative affects on wildlife and artificial water sites. We have approximately 1500 small wildlife guzzlers, 55 to 60 large wildlife guzzlers and nearly 2000 underground springs. The majority of these watersites are maintained by volunteer groups through the cooperation and leadership of the B.L.M and the D.F.G.. By personal observation I can testify this system is working. I have seen more quail, chucker, coyotes, raptors, cottontail, jacks, deer and rodents in the past two years than I've ever seen before. I feel this is amazing, considering the almost drought conditions of Southern California.

We are concerned with the limited and non access we would have if this bill is passed. The areas set aside as wilderness would prohibit any access by mechanized means. The California desert has inherent dangers and isn't an enviornment that can be safely traveled on foot or horseback. The equipment needed to repair these water sites is too heavy to transport, other than by mechanized means. Also, it's general knowledge and standard practice, when an area is changed into a designated wilderness, all signs of man must be removed.

This bill also calls for major national park designated areas. This again causes concern to us with regards to wildlife habitat improvement. Again, we have the same water problem. The national park service hasn't demonstrated a willingness to cooperate with volunteer groups when it comes to man made watersites. According to reports from the Society For The Conservation Of Big Horn Sheep, the National Park Service has refused to allow them to perform any water conservation projects within Joshua Tree National Monument. They also report the bighorn sheep are almost extinct in Joshua Tree and in Death Valley the counts have gone from 2000 down to 300. This report is confirmed by the 1988 Enviornmental impact study of the National Park Service. In areas managed by the B.L.M. and supported by volunteers, the count is up 40 %.

This proposed legislation would put undo stress on the wildlife of the California desert, who depend on man made water sources and would definitely result in the loss of these creatures forever.

The multiple use concept used by the B.L.M. seems to be the best approach to wildlife management because it also means multiple participation by interested conservation groups. We should also realize, if this bill passes, we will eliminate The California Department of Fish and Game's ability to manage habitat for wildlife species within the parks.

In summation, we sometimes speak of man as having evolved from nature and neglect the fact we are still a very vital interactive part of nature. In science there is the Heisenberg uncertainty principle. This states you can not observe anything without affecting it as applied to man and his existance on earth. We can not exist without affecting other aspects of nature. We can not seperate ourselves from any part of our planet regardless of how massive or miniscule.

Watch the bighorn sheep crop the plant they eat. Obviously they are surviving, not destroying. Let man do the same thing to that very same plant and he is destroying it. The difference is that man has the ability, the reasoning capability, the understanding, the intelligence to anticipate and predict the long term effects of what he does. I believe it is this capability that is influencing our continued existence or extinction. Regardless of our fate, this too is nature in action. All of mans actions are within natures realm. Because our intellect and tools are more sophisticated does not exclude us from nature.

Mother nature doesn't really care or make value judgements on any of her creations, she just lets them continually change. Man makes the value judgements and tries to keep things as they were. Shouldn't we learn from her? As part of nature, we are not only responsible for, but also entitled to a part of our enviornment. It's easy for some to see how we are entitled to the air we breath, the food we eat, and the ground we live on, however, when it comes to our pleasures or recreation it's more difficult.

Let's not throw away years of planning, millions of hours of professional and volunteer labor, millions of dollars and all of the value judgements involved in developing the California desert plan.

The California division of the Izaak Walton League, strongly opposes the California Desert Protection Act, S.11.

Thank you for allowing us to participate in these hearings and we urge you to increase your testimony basis by conducting local hearings so more interested and devoted California conservationist can participate.

Respectfully submitted,
Martin G Jaynes
Martin G. Jaynes
California Div. of the I.W.L.A
Chairman on Soils & Public Land

Senator **Bumpers**. Miss Davison?

STATEMENT OF PATRICIA DAVISON, RUNNING SPRINGS, CA

Miss **Davison**. Good afternoon, Senator Bumpers. My name is Pat Davison. In case you are not aware, I have worked for the California Desert Coalition and the California Association of Four Wheel Drive Clubs for the last two and a half years. However, today I am presenting testimony on my own behalf. These are my own personal feelings about S. 11 and the impact on recreation.

My husband and I enjoy the California Desert for a variety of recreational activities. We like to hike. We like to ride bikes. We like to go camping. We like to go out and look at the stars at night. We are both history buffs and we like to take old maps out to the California Desert and explore the areas that are shown on the maps.

It is that kind of recreation that is going to be lost if this bill goes through. The legislation is trying to create something that does not exist, and what I mean by that is the legislation says that there is 9 million acres of unroaded areas out there. Well, the truth is there is very few areas of the California Desert that do not have roads, and in support of that I would like to offer some documents into the testimony for your consideration and review.

There are some trail books that were put together. These are interpretive guides that are available for purchase to the public. This is a Mojave road guide. It documents a 130-mile wagon road across the California Desert.

There are three other books that have been produced by the same gentleman, working with volunteers to document other significant historic routes of travel. This is called "The East Mojave Heritage Trail."

These books represent the kinds of opportunities that Mojave Desert recreationists enjoy—the scenery, the solitude, the seclusion—and these are the opportunities that would be lost if the legislation were to go through.

I also have some other books for you. One of the areas, it was very coincidental that the gentleman, Mr. Reveles, has the Panamint area on his map for the mining interests. That is one of my favorite areas in the California Desert.

It is also one of the areas that is very thoroughly described in the Sierra Club Travel Guide. This is the Sierra Club's own publication on adventuring in the California Desert.

You can open the book and find descriptions on Happy Canyon and Tubor Canyon and the other canyons, but the legislation will close the roads—the very roads that are given to the public with information and background history are the same roads that will be affected by the legislation.

Last, we have heard reference to BLM's travel plans and their designations. This is a map that is available for public purchase. It is about $3 a map. This is the Panamint area, as I mentioned, and it shows—the map opens up quite large, but this is one of the areas.

The pink lines represent the roads that would be closed. These are roads that are identified, authorized by the Bureau for use by the public today. This is a map that was just recently purchased from the Bureau, and I put the boundary lines there so you could see how the legislation would affect these roads.

I would also like to offer into evidence some photographs. I will not go into a lot of detail with them. They do represent areas where roads exist. They also show areas that have similar types of roads, where the roads are recognized, so there is a real inconsistency between the application of the definition of a road. In some areas washes are considered, some areas they are not.

We heard criticism of the interim management policy that allows motorized use during wilderness consideration. I submit to you, it is not the interim management policy that is defective. It is the recommendation of roaded area for wilderness that is defective.

I seek the seclusion and the solitude of the California Desert. I am one of those mass of people that want to see the California Desert protected so that year after year I can go back and enjoy that. This legislation locks me out and prevents me from enjoying those kinds of activities. This legislation is a deliberate denial by a minority group and removes the options for the majority.

It is like comparing apples and oranges. We lose the primitive experiences as you see in this route of travel and we gain an experience, or we are left with an experience that is under a power line or along a graded road. That does not offer the same kind of experience and setting, an activity that you seek out there in the California Desert. They are just two different things.

Sure, there is mileage that is left unaffected, but it is not the same kind of mileage, so we are talking about two different types of roads that are affected by this legislation.

I would also like to say that there have been no specific reasons presented why these routes have to be closed. Why does Tubor Canyon and the Panamints have to be closed? What is the environmental basis for closing roads in the Cinder Cone area of the East Mojave? There have been broad generalizations and speculation offered, but no specific facts to document the need for these route closures.

I do want to thank you for this opportunity to testify, and I would be more than happy to answer any questions.

Thank you.

[The prepared statement of Miss Davison follows:]

Patrice Davison
PO Box 872, Running Springs, Ca. 92382

TESTIMONY BEFORE THE SENATE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS, and FORESTS IN OPPOSITION TO S 11, THE CALIFORNIA DESERT PROTECTION ACT

OCTOBER 2, 1989

The Honorable Dale Bumpers, Subcommittee members, ladies and gentlemen:

Good afternoon. My name is Patrice Davison. My testimony deals with current recreation use in the desert and how the proposed legislation will negatively affect recreation of all kinds.

It is obvious - S 11 is an unjustified attack on recreation.
S 11 is anti-recreation.

S 11 destroys current recreational opportunities. These are not future, or potential opportunities, these are opportunities that exist today. I am referring to hiking trails that will not be visited, camping areas that will not be accessible, rock collecting sites that will not be explored, four wheel drive roads that will not see motorized use, petroglyphs that will not be studied, bicycle excursions that will not occur, hunting trips that will not be planned, ghost towns that will not be enjoyed, the list goes on and on. The reality we must face is that recreation in the California Desert depends on motorized use and existing roads.

It is ludicrous to say that the recreational concerns of the public will be met or exceeded by this bill. This bill creates recreational problems, it does nothing to benefit recreation.

One of the problems arising out of this legislation is the attempt to create something that does not exist. A more apt name for the legislation would be the "The Wilderness Fabrication Act of 1989." There are very few places in the California desert where roads do not exist. It is false to believe that almost 9 million acres of the California Desert are unroaded. Proponent rhetoric that states "Since Wilderness is by definition without roads..." is faulty when applied to this situation. Further, proponent discussion that "ways" found in some of these areas do not constitute "roads" is first, a play on words, second, an extremely controversial subject, and third, as you will see, flat out wrong. Established, recognized, and historic roads exist in the desert areas proposed for wilderness. These roads have gone through environmental review. Some of these roads appear on BLM maps for public information (i.e. Desert Access Guides). Some of these routes appear on Auto Club maps for public information. Some of these roads are featured in the Sierra Club California Desert Travel Guide (see bookmarks for references). Some of these roads are described in historical guides for public information (i.e. Mojave Road Guide and Heritage Trail Guides). The proponents wish to ignore the simple truth that roads exist. These routes are not new routes, this usage is not new. The vast majority of legal, recognized routes have been in existence for decades, years before the legislatively-established CDCA in 1976.

Disputes about the mileage closed by the legislation and mileage remaining open should be seen as a very serious indicator that a dramatic change is being proposed, and that the change is not justified. While the proponents claim that access will still exist, they fail to explain what kind of access will exist. The mileage unaffected by the legislation represents an entirely different class of roads than those which will be closed. Proponents' estimate of 15,000 miles of road untouched warrants clarification and questioning. We know the freeways will still be open to street legal vehicles. The streets of Baker and Barstow and other communities will be unaffected. The county maintained roads will probably remain as is, maybe more congested with traffic, maybe less. The other graded or maintained roads not included in the legislation will still be okay.

But what of the thousands of miles of roads legislatively closed with enactment? The Sierra Club Travel Guide notes "For access to favorite desert haunts, desert buffs often rely on dirt roads left by mining and grazing operations. These roads usually haven't been maintained for years. Even experienced and well-prepared desert drivers occasionally grumble and sweat their way along these often-unpredictable roads, but on arrival at the secluded canyon are grateful for the solitude." (p. 71) Where does the legislation offer substitution of these lost opportunties? Is there a replacement of scenic, backcountry roads where the bicyclist can go now that he has lost most of his favorite riding places? How about the senior citizens who enjoy traveling around the desert in their motorhomes - do they now park on the graded maintained roads for their camping retreat? What of the non-street legal vehicle enthusiast who never could drive on county roads, and now cannot drive on traditionally visited roads because of wilderness? What of the rockhound who will never be able to enjoy the pursuit because the access roads to a treasured area are closed? The roads that remain unaffected by the legislation do not provide the same opportunties. It is like comparing apples and oranges. The numerous roads in the California Desert now host a multitude of recreational uses. To close thousands of miles of those roads forces people out of the areas, and there is no where else they can go. You cannot replace these lost experiences with the remaining lands.

Worthy of mention is the related topic alluded to in the Sierra Club Travel Guide - seclusion and solitude. It is fair to say that most desert recreationists enjoy the scenic, uncluttered surroundings of the desert. Paved roads, developed campsites, and "peopled" areas are not the main attractions of the desert. Anything that changes the current setting and experience levels will totally destroy the traditional desert lover's relationship with the desert environment. BLM management direction to provide backcountry recreation activities in the desert is a direct result of public need and environmental suitability.

A couple of other points of clarification include the National Park Service mission and the public use of Wilderness. It is agreed that the NPS plays an important role in the management of our federal lands. "...Congress' mandate to the Park Service has been expressed as conserving resources while providing for their enjoyment by today's citizens in a manner that will leave them unimpaired for future generations." (NPS Management Policies, Chapter 1:3, 1988). In the 1987 testimony to this Subcommittee, a document prepared by the Wilderness Society was entered into the record. The document states, "The explicit purpose of our Park and Wilderness system is to preserve part of our nations (sic) heritage and legacy for future generations." (Hearing Record 100-272, p. 308) The question at hand is whether management of new lands identified for transfer from BLM to NPS would allow the same types and amount of recreation to occur as currently found. The answer is no.

"The National Park Service will provide a variety of well integrated transportation options, placing emphasis, wherever reasonable, on nonmotorized means of travel." (NPS Management Policies, Chapter 9:7, 1988) Is S 11 passed, rockhounding would be prohibited on the park lands. Hunting would be prohibited inside the park borders. Access for street legal vehicles and bicycles could be severely restricted at the discretion of the Superintendent. Access for non-street legal vehicles could be altogether prohibited (as in Death Valley). Casual, non-commercial low level overflights by individuals would be restricted.

A review of the number of 1987 overnight stays from both Death Valley and Joshua Tree NMs show that the developed and group campgrounds received an overwhelmingly higher number of visits than backcountry camping (NPS Statistical Abstract 1987, pp. 41-42). Death Valley NM (total acreage = over 2 million acres) backcountry overnight stays was 40 compared to a total of 314,372 ONS in the developed sites. Over 95% of Death Valley is closed to motorized use. Joshua Tree NM (about 600,000 acres) backcountry overnight stays was 3,369 compared to a total of 189,112 ONS in the developed sites. These statistics show that backcountry camping is not the primary focus of Park management direction. While NPS management has its place in the scheme of things, the intent to transfer large tracts of land from BLM jurisdiction where current recreation is backcountry oriented to NPS administration will bring about exactly the opposite of the desired experience and would effect the end of that desert activity for most recreationists.

A corollary to this is the downward trend toward wilderness visitation. Except for the most popular areas, Forest Service wilderness areas are seeing little, if any increase in RVDs. The most recent FS study shows a decline of an area's popularity once the newness of the area's designation wears off. There is no reason to believe that desert lands will be any different in regards RVDs. Wilderness, in and of itself, does not serve the needs and desires of the majority of the general public for recreation. It is also debatable whether the American people really know what "wilderness" means. In all fairness, one must recognize the needs of a portion of the public who desire wilderness for recreational purposes. Recognition of that need however, cannot be translated into a piece of legislation calling for millions of acres to be set aside from general public visitation.

It is not recreation that is served by this legislation. It is not the environment. It is the elite few who support the bill. They will profit the most. The proponents argue that they are not the elitists. How does this difference of opinion get resolved? Perhaps the first place to look is in Webster's Dictionary (Second College Edition, 1986, p. 453). "Elite" is defined as "the group or part of a group selected or regarded as the finest, best, most distinguished, most powerful, etc." The proponents of the legislation have set themselves apart from the group of other people. The proponents formulated the legislation. The proponents think they know what is best for the desert. The proponents think they have the power to achieve their goal. If the legislation were to be enacted, the proponents would be enjoying activities at the expense of previous visitors. While traditional desert visitors would lose countless options for recreation, the proponents would gain innumerable options for recreation. Does this scenario fit into the definition of elite? I think so.

Certain members of the "pro" point of view have expressed opinions revealing a lack of tolerance of other activities. One example relates to bicycling, where it is explained that people on mountain bikes are objectionable because that activity is different and isn't compatible with wilderness. Another instance deals with an opinion that seems to reflect a feeling of intolerant ownership about the desert ("The Dual Purpose Poker Run...will ruin the holiday for other recreationists...Thanksgiving is one of the larger weekends for our people...To get out there and find 300 motorcyclists, it's just going to ruin your experience."). Also, the idea that desert campers will enjoy being relegated to the borders of wilderness and that some campers will hopefully be able to feel the presence of wilderness when they visit is a naive and distorted perception of what will happen. The proponents' opinions of necessary changes reflect a narrow, elitist point of view. It is not enough to voice that opinion, but to attempt to impose that opinion on others is completely wrong.

Elitism is not related to the cost of one's hiking boots vs. one's motorhome. It has nothing to do with economics. Elitism here relates to the deliberate denial of the majority's needs in favor of a minority need. Where I now have several options for recreation, the legislation mandates no option. My personal ability to choose is removed because the elite think it appropriate. My choices are eliminated because the elite say so. You may be told otherwise, but there is no real environmental reason to justify the devastating, wide spread losses to be incurred if the legislation were passed. There is no valid end to justify these means. No one group should be able to command the desert's future.

Photos taken from a one day trip this July around the Mid Hills-Cinder Cones region of the East Mojave illustrate that there is no rhyme or reason associated with the issue of roads. It is hard to figure out the logic used by the bill's authors. According to the maps acccompanying the legislation, some dry washes are cherrystemmed in as recognition of their value for access. But on other maps, washes are not recognized. Another example of the inconsistency of road recognition: a wide, obvious, hard packed route which sees considerable use by a whole variety of vehicles and needs no maintenance by a grader, is not recognized, yet an adjacent route of loose soil which must be graded for use is recognized as a road. Some roads that go to water sources are cherrystemmed, some are not. Some heavily used roads are not recognized, and conversely, some of the less frequently used roads are recognized. Another paradoxical case is where the outside boundary road looks just like the roads inside. The boundary road stays open, yet the interior roads become closed. As a final note, when the distinction cannot readily be made between how roads are recognized and how roads are not, one has to wonder. Based on the lack of parameters used to propose areas, virtually anything in the CDCA could be, and in fact, has been, labeled "wilderness"! What happened to the concept of only those lands truly outstanding ???

A question has surfaced from time to time as to the legitimacy of permitting motorized use to continue after preliminary wilderness recommendations have been made. Interim management for proposed Wilderness allows motorized use to continue when it does not impair the wilderness suitability, pending final Congressional decision on wilderness. This interim management policy is not unique to BLM - both the Los Padres NF and the Inyo NF have made preliminary Wilderness recommendations for roaded areas, and the established motorized use continues. The problem is not the interim management policy - the problem is that roaded areas are chosen for Wilderness.

Not related to recreation but significant as a point for discussion is the continuing efforts by the proponents to effect the incremental erosion of the multiple resource management philosophy mandated by Congress and carried out through BLM and Forest Service administration. This legislation would ably strip management control and flexibility from both agencies, even though there is no demonstrated need for such drastic action. Neither resource agency has spotless records, but one only has to look at the NPS track record to find comparable problems: January 1989 Death Valley NM press release concerning the possibility of illegal drug manufacturing or trafficking occurring within park boundaries; May/June 1989 NPCA magazine article re: Wildlife Poaching in National Parks, and NPCA Advisory Commission finds Park Research has been neglected; numerous GAO reports documenting NPS management inconsistencies and failures; May 1989 Ca Dept. of Fish & Game report noting that desert tortoise populations in Joshua Tree are of low density, genetically polluted and the monument cannot be considered a viable option as a sanctuary (due to several reasons); and 1988 Death Valley NM Plan Statement concerning decline in bighorn sheep populations during the last 20 years.

It is time to put this issue in perspective - the BLM, in carrying out the multiple resource mandates specified in the Federal Land Policy and Management Act, have followed a proper course. Constraints such as lack of adequate funding and staff and the need to divert attention away from priority items are the result of politics and budget. When the constraints are removed, management can proceed as intended.

This legislation reflects an attempt to deny the public the ability to become involved in an extremely crucial decision making process. There is a valid reason why county general plans, forest land management plans, and other planning documents involve the public. Not only does involvement educate the citizen, but the involvement can culminate in a better document for all concerned. Federal laws require citizen involvement in the planning process. Federal laws require plan adjustment when new information becomes available. S 11 ignores those recognized needs for all the publics to be involved, and as such, does not represent the needs of the majority.

I am part of the mass of people who want the California Desert to be protected. Protection can be evident in a variety of ways. Protection can range from absolute closure to all human use, to use under permit, to seasonal use, to avoidance of an area. Protection does not mean Wilderness. Protection does not mean Park management. Where use is causing adverse impacts, specific protective action should be taken to remedy the problem. It is an unjustified, knee jerk reaction to propose 9 million acres for closure to the majority of the public when there is no specific reason for that action. Generalizations about the potential for environmental damage should carry as much weight as generalizations about the moral character of all politicians.

No one is defending the illegal, abusive activity that has occurred and will continue to occur, no matter what area is discussed. That element of human nature can never be completely eliminated.

Protection of the environment and provision of recreational opportunities can be compatible. It is not necessary to effect massive closures. The proponents have not shown any reason why the legislation is necessary. The proponents have failed to show why society must accept this enormous cost when it far outweighs the less-than-apparent benefits.

What is most frustrating about the legislation is that both supporters and opponents share a love and appreciation for the desert. This love and appreciation stems from the sense of discovery that is inherent in most desert experiences, and the desert's overwhelming simplicity. Even though a complex network of life and natural forces are evident, the desert's attraction is its uncomplicated setting. Try as they might, the proponents cannot claim an exclusive hold over the desert.

In conclusion, I respectfully request your consideration of my point of view opposing this desert bill, and further ask your cooperation in scheduling hearings in the California Desert.

Thank you very much for this opportunity to comment on S 11.

Patrice Davison
PO Box 872, Running Springs, Ca. 92382
(714) 867-3366 Home

Senator **Bumpers**. Thank you very much.
Mr. Scott.

STATEMENT OF DOUG SCOTT, CONSERVATION DIRECTOR, SIERRA CLUB

Mr. **Scott**. I am Doug Scott. I am the Conservation Director for the Sierra Club and I represent today the 537,000 members of the Sierra Club, generations of whom in California, where the club was founded nearly 100 years ago, have experienced, studied, enjoyed and worked for the protection of the California Desert.

The protection of the California Desert and the enactment of this legislation is the top land preservation priority of the Sierra Club and the Lower 48 states, and it is because S. 11 and the companion bill in the House by Congressman Levine embody a very special vision. They ask us to reach, they ask us to be bold about the protection of an area whose fragility is too little understood, and whose dimensions are too easily taken to mean that the vastness will protect itself.

The purpose of this legislation is to provide a statutory framework, a statutory framework that the Bureau of Land Management cannot provide, by assigning the agency with the appropriate mandate to the task of managing those lands which most merit those designations.

I want to touch three issues this afternoon. First, the proposal of the Mojave National Park. I think you know, Mr. Chairman, that the Sierra Club and other national environmental groups do not lightly come before this Committee to advocate new additions to the highest classification as national parks in our country.

Only 51 areas across our whole landscape have merited this protection, and only those areas that fully measure up should be added to that list.

We looked at the Mojave National Park proposal most skeptically with that high standard in mind, and we join the Bureau of Land Management's own on the ground desert planning staff, which in 1979 strongly recommended that using the Park Service's criteria, the area proposed as the Mojave National Park fully measured up, and indeed they recommended that it be advocated for designation as a national park. Similarly, the National Park Service, in a thorough review of this legislation, has come to the same conclusion.

We advocate a national park in the Mojave Desert area because the protection offered by the Bureau of Land Management under the California Desert plan simply does not work, and a decade of experience, time and again, in episode after episode, has demonstrated that to our complete satisfaction.

The second point I would like to make is that the desert plan, despite all the talk of wasting a decade and $8 million, was a plan that was merely one step in a process, and as Senator Cranston said here this afternoon, the plan simply has not fulfilled the high hopes that all had at the outset in that process.

We participated and contributed to that plan along with many other groups on all sides of this issue. We have tried to make it work. However, it has not worked, and in retrospect, some of the comments that were filed by government agencies about that plan when it was being finalized demonstrate why.

The Council on Environmental Quality pointed out that no alternative considered in the plan, including the most protective alternative, would avoid violating the Endangered Species Act.

The Geological Survey found itself saying that "the plan attempts to satisfy demands, especially for motorized vehicle access, that exceed the fragile limits of desert systems. Even the protection alternative provides for expanded deterioration of natural systems."

The University of California's Museum of Vertebrate Zoology said that the plan underestimates the impact of a great variety of land uses: off-road vehicles, vehicle access, use of desert vegetation and the like.

But in fact, the realities of arid land tolerance of human uses systematically have been misjudged in the Bureau of Land Management's attempt to provide their view of balance. I will submit all of those documents for the record, if I may.

The plan has not worked. A legislative statutory framework recognizing the national park quality lands and the wilderness quality lands of this vast area is the key needed to see the area better protected.

Finally, I want to turn to these preposterous assertions that we lock people out with this legislation; that we are protecting the desert from Californians instead of for Californians; that we are cutting off roads right and lift. This is all balderdash.

It is simply untrue. Only in a very small minority of cases where specific boundary proposals have been worked out that require the closing of existing routes and roads, a tiny amount of area—there are in fact 35,000 miles of maintained roads and jeepways which are unaffected by this legislation and will remain available, and we have said that is enough to go to the Moon three or four times, or around the planet, but I have tried to put it together in a different way.

If your averaged motorized person spent seven hours on each weekend day for 115 weekends—two years plus—seven hours per day driving, never stopping, they would not cross their track one time before they have covered all the roads that would remain open in the California Desert under S. 11.

There are 700 miles of roads which are cherrystemmed, which reach in towards the center, up desert washes, towards the center of the proposed wilderness areas in this bill. There are 1,500 miles of roads and ways which are in fact the boundary of wilderness proposals in this bill, and I would like to call one to your attention, senator.

I think you have a map before you which shows the western extension of the Death Valley National Monument. That is a road. A dirt road that runs north to south along what would be the west boundary of the new Death Valley National Park in the so-called Saline Valley.

My family and I—my wife, my year-old daughter and I—picnicked in what will be that expanded national park, using that road as our access. No one needs to tell my one-year-old, nor myself, nor my wife, that they are frozen out of access to that kind of ability in this very wild and spectacular area that deserves national park protection.

We have maps that demonstrate this and some examples that I could show you, Senator. We also have some interesting photographs. The California Desert Coalition's maps have not been field-checked particularly well. This is in the San Gorgonio editions. This is a Sierra Club trail maintenance trip.

That is a road, according to the California Desert Coalition map. Here is another picture of that road. Here is a picture of a road. This is road number three in the San Gorgonio editions, according to the CDC map.

Now, we can play these games of photographs and maps back and forth all day, but I think the important point to say is that very careful work has been done to identify these areas. Senator Cranston and Congressman Levine have repeatedly requested that people with specific conflicts or disagreements with these boundaries bring them forward in a specific way and Senator Cranston has shown by the changes he has made that he is responsive to those specific requests, and I believe and we believe that it is time to get away from these generalities about locking it up and protecting it from Californians and get down to cases, and we hope the Committee will take that step.

[The prepared statement of Mr. Scott follows:]

SIERRA
CLUB
408 C Street, N.E. Washington, D.C. 20002 202·547·1141

STATEMENT OF DOUG SCOTT, CONSERVATION DIRECTOR OF THE SIERRA CLUB,
REGARDING S.11, THE CALIFORNIA DESERT PROTECTION ACT,
BEFORE
THE SENATE SUBCOMMITTEE ON
NATIONAL PARKS PUBLIC LANDS AND FORESTS
THE HONORABLE DALE BUMPERS, CHAIRMAN
OCTOBER 2, 1989

Mr. Chairman, Members of the Subcommittee,

My name is Doug Scott. I am Conservation Director of the Sierra Club, a citizens conservation organization of over half a million members. The Sierra Club was born in the struggle to create Yosemite National Park; achieved national prominence in the successful campaign to save the Grand Canyon from dams in the 1960's; and in 1980 was instrumental in the passage of the greatest land conservation measure in history, the Alaska National Interest Lands Conservation Act.

A top priority mission for us now is to fulfill the promise of the Wilderness Act of 1964 and of the Federal Lands Policy and Management Act of 1976 (FLPMA), and achieve statutory protection for the public lands in the California Desert with exceptional natural resources.

The California Desert contains some of the most extraordinary treasures of human and natural history of any public lands in the United States--and these resources face increasing perils. The campaign to protect the desert is a pivotal test of whether the historic vision embodied in the Wilderness Act and FLPMA can become a reality...of whether the rich legacy of all Americans in our public lands can be shared with generations to come. Protection of the California Desert is the Sierra Club's

"When we try to pick out anything by itself, we find it hitched to everything else in the universe." *John Muir*

highest land conservation priority in the lower forty-eight states.

The desert is a haven for some 760 species of wildlife and 940 species of plants. Like the Galapagos Islands, the desert is a mecca for biologists from around the world.

The desert contains archeological sites which may be 10,000 years old. Barry Lopez has described the California Desert as "one of the greatest repositories of rock art in the world." The well preserved intaglios (sites where the surface rocks have been scraped aside to create giant man figures), and countless petroglyphs and pictographs constitute a global archeological treasury of extraordinary historic and artistic value.

The desert is, for the 15 million people who live within a day's drive, a vast and varied recreational facility which offers extraordinary opportunities for outdoor sports enthusiasts--and anyone who values wide open vistas, clean air, and solitude...invaluable commodities in Southern California.

The desert contains important mineral and energy resources as well, provides land and air space for military operations and provides corridors for power transmission.

But the desert cannot continue to offer so much to so many without a more specific, more balanced and comprehensive statutory framework for management. Just in the past twenty years, as travel to the desert has boomed, 100 species of wildlife have been pushed to the edge of extinction (the California State reptile, the desert tortoise, was recently listed as an endangered species); Native American artifacts have disappeared at the rate of 1% annually; and vast areas of the desert have been irreparably scarred by off-road vehicles (ORVs). It was estimated in 1979, after only 20 years of heavy ORV use, that more than one million acres of the desert had been scarred by these vehicles. By comparison, it took more than a century of strip mining to similarly damage two million acres of land in the entire United States.

One of the most pernicious threats to the desert comes from a new mining technology, which through the marriage of massive open pit mining and the use of toxic chemicals allows tiny invisible gold specks to be extracted from very low-grade ore. BLM issued a permit for such an operation in the East Mojave National Scenic Area. Under this proposal hundreds of acres of desert would be stripped bare, excavating enough soil in the process to cover a football field to a height of more than half a mile. This pile would be drenched with a cyanide solution, to extract only an ounce of gold for every 30 tons of earth. Only after conservationists protested the permit did BLM call for an Environmental Impact Statement in 1989.

The desert is so fragile that the damage from indiscriminate human use may never heal. Tracks from the pioneers' covered wagons are still clearly visible. What right have we to bequeath to generations upon generations to come millions of acres of scarred, eroded, lifeless desert lands?

Recognizing the desert's perilous situation, far-sighted Congressional leaders and conservationists sought inclusion of Section 601 in FLPMA, which established the California Desert Conservation Area and directed the BLM to formulate a desert management plan. Our volunteer desert activists contributed much hard work to the planning process, but their vast experience with the desert's fragile resources was largely ignored, and the BLM adopted instead a plan with weak conservation provisions. Our volunteers then attempted to close loopholes through the plan's amendment process, but the BLM instead adopted amendments which, for example, reinstated the highly destructive Barstow-to-Las Vegas motorcycle race.

Conservation groups were not the only harsh critics of the desert plan. Government agencies and scientists predicted dire consequences for the fragile resources of the desert if the plan were not substantially improved. The President's Council on Environmental Quality, in commenting on the draft plan, suggested that the impact on wildlife and endangered plant species under all alternatives, including the protection alternative, would violate section 7 of the Endangered Species Act.

The Geological Survey's comments were also very critical of all of the draft plan alternatives:

> However, for the most part the Plan attempts to satisfy demands, especially for motorized vehicle access, that exceed the fragile limits of desert systems. The approach used for evaluating environmental impacts of the proposed alternatives obscures the true conclusion that deterioration of almost all of natural resources of the desert will result from implementing any of the alternatives. In effect this fact is hidden by calling a reduced rate of decline a positive impact. For a living resource, this amounts to calling a temporary reprieve from extermination a positive benefit... Even the protection alternative provides for expanded deterioration of natural systems.
>
> -- Memo from Director, Geological Survey
> May 2, 1980

Unfortunately the final plan was not even as protective as the much criticized "Protection Alternative" in the draft. In commenting on the Final EIS and Proposed Plan, the scientific staff of the University of California Museum of Vertebrate Zoology criticizes the BLM for failing to correctly analyze the impacts of its proposed plan on the fragile desert ecology:

> ...a large majority of the American people want the California desert managed for sustained yield and conservation of its wildlife and other natural resources for this and future generations. ...Yet consistently throughout the document [the proposed plan] underestimates the impacts of a great array of land uses--off-road vehicles, vehicle access, use of desert vegetation, grazing and other uses on the soils

> and biota of the desert. [the proposed plan] tries to strike an even balance between consumptive (non-renewable) uses and non-consumptive ones. But in fact the realities of arid land tolerance to human uses systematically have been misjudged in this attempt to provide balance.
>
> -- Letter dated November 17, 1980

I would like to submit for the record copies of the above mentioned comments as well as the Sierra Club's comments.

The truth of these predictions of damaged lands and wildlife have sadly been borne out in the nine years since the Desert Plan was adopted. For confirmation, one need only look to the dire straits of the Desert Tortoise, recently given an emergency listing as an endangered species. In the last seven years alone, the animal's population has declined by as much as 50% in the western Mojave Desert according to a BLM study. The study recently issued by GAO provides further confirmation that the problems of wildlife management in the desert are not limited only to the Desert Tortoise.

In developing the Desert Plan, the bureau not only failed to heed the advice of conservationists and scientists calling for greater protection of the fragile desert environment; they also ignored, and in fact buried, a 1979 BLM staff study which found the area now proposed as Mojave National Park, and the areas this bill proposes to add to Death Valley to fully qualify for national park status. I would like to submit for the record a copy of that study and a later study by the National Park Service which reached the same conclusion.

We have become convinced by experience that continued management of the desert under the inadequate plan developed by BLM will produce accelerating erosion of the resource's special qualities. We believe strongly that the legislation you are considering today promotes the interests of the vast majority of Californians and Americans in the desert region by providing for balanced, sustainable recreational use and economic development. Certain unique and fragile areas would be set aside as parks or wilderness, but vast areas of desert lands would remain open to resource development. Uses that are particularly destructive to the desert environment, such as off-road vehicles, would be confined to certain areas, but the desert would remain accessible to everyone, since all but a handful of the existing roads and jeep trails would open for use in an enormous road network.

A primary focus of criticism of this bill has been that it locks up the desert and denies access to those who choose to travel by vehicle. Nothing could be further from the truth. This bill does indeed close off some areas to vehicle travel -- 4.5 million acres of wilderness distributed in 81 areas would be closed to motorized access. Additionally, some 4 million acres of national park wilderness would also be closed to motorized access. But even these figures paint a deceptive picture, because of the size, shape, distribution and boundary configurations of the proposed wilderness areas. Many of the wilderness area boundaries are formed by roads or jeep trails, and as a result there are 1,500 miles of roads and jeep trails that are bounded on one side by wilderness. In addition there are 700 miles of roads and jeep trails that penetrate wilderness areas but have been excluded by a boundary configuration called a cherry stem. These cherry stemmed roads provide the vehicle-bound desert visitor with an opportunity to be almost surrounded by wilderness without leaving his vehicle.

It is worth noting that many of those who oppose this legislation appealed to the Interior Board of Land Appeals to have the cherry-stem boundary configuration declared illegal. Their goal was for wilderness study boundaries to be pulled back to the end of any road, thus eliminating millions of acres of qualifying land on either side of the road. It would appear that for a small, albeit vocal, minority, the only adequate access to the desert is totally unrestricted--the right to drive to the top of every mountain, to the end of every wash and canyon. This type of access, would surely destroy the California Desert -- killing the goose that laid the golden egg. In this case, the board rejected their appeal.

At most, this legislation would close off some 1,500 miles of jeep trails, leaving available over 30,000 miles of paved or maintained dirt roads and unmaintained jeep trails. To put this figure in perspective, this is enough miles of road to drive around the world and then some. Another way of looking at it is that this provides enough miles of road for a vehicle-bound recreationist to go to the desert every weekend for more than two years (115 weekends), and drive seven hours each day exploring new roads. (This calculation is based on an average speed of 50 mph on maintained roads and 20 mph on jeep trails.)

In addition to the vast network of road and jeep trails, this legislation also leaves open almost half a million acres of play areas dedicated to off road vehicles. In these areas vehicles can go anywhere that gravity will allow. These areas are seriously damaged by such use, but many consider them as sacrifice areas and focus their attention of preserving the rest of the desert.

It is possible that even with passage of this bill, future generations will judge us harshly for having made the desert too accessible, for having bowed to the political pressure to allow the continuation of events such as the Barstow to Las Vegas Motorcycle race, and for allowing half a million acres of this fragile environment to be set aside as sacrifice areas. But I do not believe that future generations will accuse us of having locked up the desert. Already, public opinion is on the side of more, not less restrictions of vehicle use in the California Desert, and more not less park and wilderness protection. This has been consistently demonstrated in national, California-wide, and desert-wide polling since 1975.

A second criticism is that this bill will be bad for tourism. There has been far too little research regarding the economic impact of park and wilderness designation, but what little there is indicates that contrary to the critic's allegations of harm, park and wilderness designations are generally a boon to local economies. Many communities in the Western United States are beginning to understand that their long-term economic survival rests upon preserving and protecting their "backyard" public lands. Tourism has proved to be a more reliable and stable contributor to local economies than mining with its boom and bust cycles. Marion Eason, a tourist official in Moab Utah, which is located near Arches and Canyonlands National Parks said, "If our parks disappeared, most of our business would disappear also." Similarly, creation of the 76,000-acre Great Basin National Park near Ely Nevada increased the number of tourists to the area by 51 percent.

California is the nation's number one destination state for tourists. In 1985 California received $31.1 billion in travel expenditures. This is $28.7 billion more than total sales of nonfuel minerals in California the following year. The existing monuments in the desert are already generating considerable revenues. For example, in 1987, Joshua Tree National Monument attracted 830,000 visitors and Death Valley National Monument attracted 693,000. If the proposed Mojave were to receive similar visitation, it would be a tenfold increase over the current number of visitors. The Park Service estimates that as much as $25-$50 million a year are spent in the region by visitors to Death Valley alone. Two-thirds of the pillow taxes collected by Inyo county were contributed by Death Valley, nearly $400,000.

The Sierra Club, and the other national and regional member organizations of the California Desert Protection League, believe that the fate of the California Desert should be of the utmost concern to Congress and all Americans. In an era of booming public enthusiasm for the outdoors--as well as federal budget deficits--here is an opportunity to create three spectacular new national parks without purchasing large quantities of private land. Here is the necessary legislative follow-up to the objective of far-sighted desert management set forth in FLPMA. And here is a bold step toward fulfillment of the historic vision of the Wilderness Act. We urge the Congress to seize this opportunity by acting quickly and favorably on the California Desert Protection Act.

Senator **Bumpers**. Thank you. Mr. Yeager.

STATEMENT OF BROOKS B. YEAGER, VICE PRESIDENT FOR GOVERNMENT AFFAIRS, NATIONAL AUDUBON SOCIETY

Mr. **Yeager**. It is a pleasure to come before you on behalf of the National Audubon Society to strongly support the California Desert Protection Act, S. 11.

I will try not to repeat what other witnesses have said today. We believe that the bill is a well-crafted and carefully balanced effort to do two things: one is to preserve a level of access that is appropriate for the California Desert in maintaining a sustainable level of public access to the desert, but the second is to protect what is really the integrity of the desert itself in the midst of what has been correctly described as an overwhelming and growing pressure of $15 million people to its west and various kinds of uses.

It may not come as a surprise to the Committee that the Bureau of Land Management, which is an organization which is dedicated to the multiple use philosophy of public use management, has been unable to achieve a compromise that satisfactorily attains both of those goals.

The Audubon Society participated, as did the Sierra Club and other conservation groups, in the beginning of the evolution of the California Desert plan. In fact, our California office prepared extensive comments at several points during the evolution of the plan, pointing consistently toward the need for significant expansions of the areas of critical environmental concern and of more careful attention to protecting the wildlife values that we believe are the central value of the California Desert.

It may also not be a surprise to know that we did not believe—we do not believe that the California Desert plan in its final form and in its implementation by the Bureau of Land Management has successfully done that.

What we are confronted by is a problem that is not an easy one. It is not just a matter of protecting desert vistas or even of protecting park value lands, it is a matter of protecting the integrity of the desert itself, of the biotic diversity that defines the desert, of a system in which species such as the Desert Tortoise are not just isolated residual species but are indicators of the health of the biological system of the desert itself.

It is a desert that is so unique that at Kew Botanical Gardens in London, I am told—I have never visited Kew Botanical Gardens, although I have visited the California Desert—one of the three leading world botanical research gardens has an entire exhibit, an entire division devoted especially to the botany of the Mojave Desert.

This is not just a national treasure, it is an international treasure. It is the kind that sometimes takes very difficult choices to protect.

Mr. Scott has defined in many ways the ways in which care has been taken in S. 11 to leave access open for use of the desert, but I would like to talk a little bit about why it is necessary to make some decisions about access and why it is necessary to close off some areas.

It is clear that, as you look at the history of the desert plan and at the same time, we have been told by the BLM people who were here that we are close to the end of a ten-year process in which BLM is acting in a responsible way under its rights to achieve conservation in the desert—and I should say that the California Office of the Audubon Society has historically enjoyed a very close working relationship with the Bureau of Land Management, including in areas of the desert—but I think that looking at the fact that the key desert species are in dire trouble, and at the accumulated scientific evidence of the damage to the desert that is caused by off-road vehicle use, I think we have to conclude that there is a sense of urgency, that the biological system which is really what makes the desert something that people like to travel to, that people want to explore at their will, has to be protected, and in some cases that may mean restricting motorized access to those areas.

I would like to note in that regard, I will not go over all the material about the Desert Tortoise, except to say that it is indicative of the health of the overall desert because it is what is called "density dependent population."

That is, tortoises do not do very well if they cannot find each other in terms of reproduction, and since they do not travel very fast, it is important that the basic level of population in a general area be high enough so that they can find each other.

That is something that is hurt by a number of factors, but not least among them is motorized use of the desert, and I would note that in the Fish & Wildlife Service's emergency declaration with regard to the tortoise, they spend quite a long time on vehicle use, and they say among other things, vehicle free play in tortoise habitat results in cumulative adverse impact to the habitat. Concentrated vehicle play areas may eliminate all but the most hardy shrubs. Competitive off-highway vehicle racing events adversely impact the habitat. Camping at race start and finish areas receive intensive vehicle use and become devoid of vegetation. That tortoises are eliminated from these areas is entirely due to loss of food, cover and burrow sites. Affected areas become enlarged with continued use.

The major point is, we are confronted with two sets of facts. We know the population of Desert Tortoises is in a cataclysmic decline, that their decline is serious enough to be treated as an emergency by the Fish & Wildlife Service.

The Bureau of Land Management, which has done some of the best research on the Desert Tortoise of any of the agencies is in full knowledge of this, and yet they are still considering proposals for off-road vehicle races, two of them that would go right through critical Desert Tortoise habitat, both the Barstow to Vegas Race and the so-called—and this has a funny name, I am trying to recall it—the Dual Sport Poker Ride, which would traverse immediately through Desert Tortoise habitat.

I do not think we can sit here and blame the Bureau of Land Management for holding to its traditional multiple-use philosophy, but in some cases the reasonable response to that may be to remove large areas to a more protective designation and to a more protective management.

I would also like to note that having done that, which we believe Congress should do, that will not necessarily solve the entire problem, and that it will be necessary to provide funds for habitat management and for more intensive efforts to protect the integrity of the desert, and we hope that the Congress will, after enacting S. 11, look carefully at its implementation in that regard.

Thank you.

[The prepared statement of Mr. Yeager follows:]

National Audubon Society

NATIONAL CAPITAL OFFICE 801 PENNSYLVANIA AVENUE, S.E. WASHINGTON, D.C. 20003 (202) 547-9009

STATEMENT OF BROOKS B. YEAGER
VICE PRESIDENT FOR GOVERNMENT AFFAIRS

REGARDING S. 11, THE CALIFORNIA DESERT PROTECTION ACT

BEFORE THE SENATE SUBCOMMITTEE ON PUBLIC LANDS,
NATIONAL PARKS, AND FORESTS

HONORABLE DALE BUMPERS, CHAIRMAN

OCTOBER 2, 1989

100% Recycled Paper

Mr. Chairman, Members of the Subcommittee,

Thank you for the opportunity to present the views of the National Audubon Society concerning the California Desert Protection Act, S.11.

The National Audubon Society is one of America's oldest and largest conservation organizations, with over half a million members around the nation and in several foreign countries. We have been and continue to be actively involved in securing protection of our nations wildlife and public land resources. We manage over 250,000 acres as part of our nationwide sanctuary system. We conduct scientific research on a variety of wildlife and wildlife habitat-related issues. We have produced educational and television programs designed to increase public awareness of the importance of land and habitat, and have made preservation and protection of the renewable resources of our public lands one of our central missions.

The National Audubon Society strongly supports the California Desert Protection Act, S.11. We believe the bill represents a well-crafted and carefully balanced effort to attain lasting protection for the best and most fragile desert lands while preserving an appropriate level of access for traditional and recreational uses.

We have participated at various levels in the historic effort to protect the California Desert and its wildlife balance. During the evolution of the original California Desert Plan, we prepared extensive comments that argued for improvements in the wildlife management programs envisaged in the plan, and significant expansions of the areas identified as Areas of Critical Environmental Concern (ACECs). More recently, Mr. Robert Barnes, of the Tulare County Audubon Society, testified in favor of Senator Cranston's S.7 in July of 1987.

Mr. Barnes focussed his testimony on the wildlife values of the Kern River watershed, and the need to preserve the desert's extraordinary reservoir of biodiversity. At the same hearing, Dr. Lawrence Franklin LaPre, a consulting biologist for the San Bernadino Valley Audubon Society, presented the Committee with a concise argument as to the incompatibility of multiple use land management and the preservation of some key desert species, including the California bighorn sheep, kit fox, golden eagle, and the desert tortoise.

We are particularly interested in the fate of the California Desert, for reasons that will perhaps come as no surprise to the Subcommitee. This 25 million acre region, covering almost one quarter of the state of California, is a unique treasure that encompasses an amazing diversity of land-forms and plant communities and is home to more than 760 wildlife species -- of which almost 100 are threatened with extinction. It includes lands that are as sparsely populated as any in the United States -- yet it coexists in an increasingly perilous proximity to one of America's largest and fastest growing metropolitan areas.

It is not surprising, given the enormous pressure from over 15 million people on the desert's western edge, that the delicate balance which holds together the fragile plant and wildlife communities of the desert is threatened. Nor is it surprising, in view of the technological advances that have allowed increased commercial, recreational, and residential development of the desert itself, that a multiple-use agency with a mandate to protect the desert's unique values and at the same time to allow continued development of its resources has failed to achieve a compromise that will protect the essential values of these lands for future generations.

The enactment of S.11 will not, by itself, resolve all these problems. It will, however, establish a framework of protective designations that are better suited to protect the desert and its natural wildlife balance in the face of the steadily mounting threats to its integrity as a viable ecosystem.

Contrary to the views of some who argue that S.11 ignores or overthrows the long planning effort which resulted in the 1980 California Desert Plan, we believe the bill builds on the strengths of the plan, remedies some of its weaknesses, as well as many of the weaknesses of its implementation, and that its enactment would mark the culmination of the Congressional effort to assure the protection of the desert which began with the designation of the California Desert Conservation Area in the Federal Land Policy and Management Act of 1976 (FLPMA).

WHY PROTECT THE DESERT HABITAT?

The California Desert is not solely a land of exquisite vistas and bizarre rock formations. As those who have visited it know, it is also a unique sanctuary for an astounding variety of wildlife and plant forms. It fills with wildflowers in the early spring, and provides critical habitat for the desert tortoise, mountain lion, bighorn sheep and many other species year round. It is home to eleven breeding species of hawks, eagles, and falcons, and nine species of owls. The desert includes what may be the oldest living plants known to man - the creosote bush, as well as isolated populations of salamanders and other wildlife whose entire species habitat may be restricted to a few springs and ephemeral watercourses. New and scientifically interesting species continue to be discovered annually.

The regional staff of the key land-managing agencies, the Park Service and the BLM, have clearly recognized the unique character of these lands, as well as their need for additional protection. As early as 1977, the Western Regional Office of the Park Service concluded that additions to Death Valley similar to those now proposed in the bill would "round out" the Monument in a way that would "better represent and preserve a superb example" of the California Desert.

Similarly, when the Desert Plan Staff of the BLM prepared its 1979 report on the possible addition of the Eureka-Saline area to the park system, the authors reached the "unavoidable conclusion that the area qualifies for inclusion into the National Park System as a National Park."

As recently as 1987, the Park Service's Western Region continued to voice support for such additions, as well as for the addition of the East Mojave to the Park System. Referring to the East Mojave, the Park Service declared "it would be difficult to find an area of similar size with as many outstanding sites." The Park Service report also stressed the key defect of the present management regime, saying: "the BLM is presently committed to management of the area on a multiple use basis... protection is not absolute and compromises must be made between resource preservation and economic activities such as mining and grazing."

The National Audubon Society has historically enjoyed a constructive working relationship with the Bureau of Land Management in California. We recognize that many of the criticisms of the BLM's management of the renewable resources of the California Desert are directly related to shortages of the manpower and funds necessary to achieve even those goals set out in the Desert Plan and detailed by the agency's own wildlife experts. At the same time, it must be recognized that some of the clear weaknesses in the implementation of the Desert Plan result directly from the inherently ambiguous management mandate under which the BLM operates.

In effect, the BLM, and the Interior Department, need exactly the kind of clear Congressional guidance to place the highest priority on the protection of the Desert's ecological and wildlife values that would be given by the enactment of S.11.

THE ACCESS ISSUE

Nowhere is this clearer than in the opposition of the urgent need to take strong, immediate action to protect the endangered desert tortoise, and the ideal of "access", and particularly access for motorized recreation.

The desert tortoise, incidentally the California "state reptile," is considered by many biologists to be an important indicator species for the overall health of the desert habitat of the California Desert Conservation Area (CDCA). Monitoring by BLM biologists has indicated, that since 1979, the population of this key species in the Desert Tortoise Natural Area has declined by 50%, and in the western Mojave, by 50% - 60%. In the Chuckwalla Bench ACEC, the decline has been even more rapid -- from 50% - 70% in the last six years.

Recognizing the widespread and precipitous decline in the overall population of the desert tortoise, the U.S. Fish and Wildlife Service exercised its emergency authority this August to declare the Mojave population of the desert tortoise an endangered species. The foremost reason for the population decline cited by the USFWS was the "present or threatened destruction, modification, or curtailment of its habitat... due to an accelerating rate of urban, energy, and mineral development, military activities, vehicle-oriented recreational activities, grazing, and land exchanges."

The evident fact that the preservation of the desert tortoise and the continuation of multiple use management of the greatest part of the California Desert Conservation Area are incompatible was predicted two years ago by Dr. LaPre:

> (The desert tortoise) is density dependent, that is, it needs to be present in large populations to effectively reproduce. Habitat for the tortoise is fragmented into small cells generally bounded by roads, cities, or mining operations, and long-term survival of healthy populations is doubtful. Over time, collisions with vehicles, including the crushing of juveniles in their burrows, takes a toll on the population that depletes it beyond recovery.

The truth of this bleak proposition has apparently been impossible for BLM, with its overriding mandate for multiple use, to admit. In January of this year, in spite of the clear evidence of population decline, the BLM's

California State Director urged the California Fish and Game Commission to defer listing the desert tortoise as endangered for two to four years.

And in spite of the emergency listing this summer by the USFWS, the BLM is still considering the possibility of staging not one, but two, large motorcycle races -- the Barstow to Vegas race and the "Dual Sport Poker Ride" -- both of which would traverse key desert tortoise habitat.

As if to confirm the fundamental near-sightedness of the agency on this key issue, BLM Director Cy Jamison, testifying before the House Interior Committee in July of this year, cited "the impact of the potential loss of certain types of recreation opportunities, including recreational vehicle use," as one of the key reasons BLM continues to oppose the enactment of the Desert Protection Act.

In fact, although S.11 would restrict motorcycles and off-road vehicles from many areas where continued motorized recreation poses a real danger to habitat and key desert species, the bill would leave open more than 15,000 miles of dirt "ways," and, as Senator Cranston has repeatedly made clear, the most heavily used ORV areas would not be affected. In effect, S.11 would leave almost 740,000 acres of BLM's desert lands available for unrestricted ORV use -- an area the size of the entire state of Rhode Island.

NATIONAL PARK AND WILDERNESS DESIGNATIONS

In conclusion, I would like to make some simple points:

The key issue facing the Committee and the Congress as you consider S.11 is not the relative importance of preserving a few desert vistas, no matter how spectacular, but rather the much more difficult battle to preserve the integrity of California Desert Ecosystem itself. The integrity of the desert is not just its beauty, or its solitude, but its biodiversity -- the delicate web of soils, water, and plant and animal life which sustains the desert and is sustained by it.

As we are now witnessing, in the sad case examples of the some of the desert's key indicator species, this diversity cannot be maintained in a habitat that is being steadily fragmented and eroded by the exfoliating pressures for "multiple use." Nor can it be effectively protected under the jurisdiction of an agency whose primary mission is defined by the same term.

Removing the best of the desert lands, in large blocs, from the pressure of "multiple use" represents the best possibility we now have to protect the overall life and identity of the desert itself. The lands that are proposed for Park status in S.11 deserve to be Parks, and the lands proposed for wilderness in S.11 deserve to be wilderness; but beyond that, both designations carry with them a higher level of protection than that afforded under current management practices.

There are other key advantages to the proposed redesignations, including the fact that the Park Service is more experienced at managing visitors to sensitive land than is the BLM. At the same time, redesignating these lands will not solve all the problems that have been identified as assailing the desert community.

There will remain a need for a higher level of commitment, both in terms of dollars and in more precise management guidelines, for the desert's varied wildlife values. As we at Audubon urge the Congress to take the first step of aggressively pursuing the protection of the desert begun in 1976, we also urge you to make sure that both the key land managing agencies are given the resources necessary to protect and preserve this great natural treasure.

Senator **Bumpers**. Thank you.
Dr. Goerold.

STATEMENT OF DR. W. THOMAS GOEROLD, CHIEF ECONOMIST, ENERGY AND MINERAL RESOURCES, THE WILDERNESS SOCIETY

Dr. **Goerold**. Thank you, Senator Bumpers.

I would like to address allegations that have been made regarding the California Desert Protection Act. Opponents of the bill have charged that the protection of large acreage of public lands in California would shut down the mining industry in southern California, and deprive the nation of world class deposits of rare earths and borates, to name a couple of these commodities.

In addition, it has been alleged that many mining jobs would be lost and large economic losses could be expected with the enactment of this legislation. These statements have absolutely no basis in fact. The California desert conservation area is a 25-million-acre unit that contains federal, state and private lands. The new park and wilderness acreage proposed by this legislation amounts to approximately 7.9 million acres from within the larger 25-million acre CDCA. This is an extremely important distinction.

The 25-million-acre CDCA does indeed host world class deposits of borates and rare earths, as well as significant production of gold and many construction materials. However, the 7.9-million acre proposed protected area does not contain any production of borates or rare earths and, in fact, contains less than 1 percent of the active mines in the State of California.

Any mention of the supposed extreme impacts of this legislation to current producers of rare earths or borates production is a red herring. None of these producers would have any production or reserves of these commodities affected by the bill. In fact, in almost all cases, these producers have an enormous amount of economically producible material that will continue to be produced long into the next century, near existing mines and outside the boundaries of the proposed legislation.

A maximum of six active mines out of a state total of over 800 are located within the boundaries of S. 11. There is a maximum of one active mine in a proposed wilderness and five in proposed new park areas according to State of California material. This means that there are 800 active mines in California outside of the protected areas. Together, these active mines host the vast majority of mineral production and employment in the State.

In fact, the economic employment impact of the entire non-fuels minerals industry to the State of California is rather small. In 1986, total non-fuels industry earnings and employment according to the Bureau of Mines amounted to less than one-tenth of 1 percent of statewide totals. Even if these six mines, less than 1 percent of all active mines in the state, were closed by legislation, the economic and employment impact would not be large. Of course, all jobs are important to the firms and the employees that would be affected. Fortunately, the proposed legislation recognizes that the operators of any active mine or claim that can prove the existence of a valuable mineral deposit will receive continued protection of those mineral rights regardless of any land status changes. Thus it is likely that the six active mines that lie on lands affected by S. 11 would have continued legal protection of their mineral rights.

Another false or misleading statement that is frequently advanced by the opposition of this legislation is that the bill will lock up large quantities of strategic minerals that are found only in the California desert area. The Office of Technology Assessment, Congress' own agency, has identified 14 minerals as having strategic value. These minerals include commodities such as diamond, manganese, chromium, aluminum, vanadium and others. Not one of these 14 commodities is produced at an active mine and there are no identified reserves of these commodities anywhere in the 7.9-million acre area covered by the bill, or for that matter even in the 25-million-acre CDCA.

A final point is to clarify the mineral potential argument. Proponents of this argument are fond of saying, absence of evidence is not evidence of absence. Or, in other words, just because you cannot see it does not mean that it is not there. So how can we predict where future mineral activities are likely to occur. One way to consider this question is to look at the criteria that newly discovered mines have in common. As of 1987, there were 30 active or proposed gold mines in the California desert. Most of these mines are newly opened; 27 of the 30 mines are found at sites of significant historical mining activity, that is, new mines are not randomly distributed throughout the state; 90 percent of the gold mines in the California desert area are located at the site of significant old mineral production.

This point is an important one to consider, because the proposed legislation drew boundaries to exclude significant historical mineral activity to the maximum extent possible. The areas that would be protected by this bill have significant known natural value, such as wildlife, wilderness or recreation. Some of these areas may also hold the potential for future mineral exploitation. In these areas, we must make an intelligent and informed decision in land classification.

Historically, this country has placed a premium on the short-term extractive uses of land, with little regard for the long-term environmental consequences. We now have an opportunity to protect a large segment of public lands containing many diverse natural values. This action would apparently have, at most, a minor impact to the current and projected future mining industry of this region and the rest of the country.

Thank you.

[The prepared statement of Dr. Goerold follows:]

THE WILDERNESS SOCIETY

TESTIMONY OF DR. W. THOMAS GOEROLD, CHIEF ECONOMIST-ENERGY AND MINERAL RESOURCES, THE WILDERNESS SOCIETY. TESTIFYING ON THE EFFECT OF THE CALIFORNIA DESERT PROTECTION ACT, S. 11, ON THE NONFUEL MINERALS INDUSTRY IN THE CALIFORNIA DESERT. BEFORE THE SENATE ENERGY COMMITTEE. OCTOBER 2, 1989.

Mr. Chairman and members of the Committee, I am Tom Goerold. My academic background includes an M.S. in Economic Geology and a Ph.D. in Mineral Economics. I have been employed by several mining firms, much of that time spent exploring for minerals in the western United States. For the past three years I have worked for The Wilderness Society conducting energy and mineral assessments on the public lands in various western states. A large portion of this effort has been focused on an evaluation of the mineral production potential of federal lands in the California Desert Conservation Area (CDCA) and how they may be affected by The California Desert Protection Act (S. 11). In the course of this investigation, I have spoken with officials of the Bureau of Land Management, U.S. Bureau of Mines, U.S. Geological Survey; examined the government agencies' files and reports; and toured many of the mineral properties in and around the California Desert.

I appreciate the opportunity to share the information I have gathered on questions related to the importance of mining to California and the California Desert region and the impact of the California Desert Protection Act. My testimony examines several aspects of mining in the California Desert: (1) the role of nonfuel minerals production in California's economy and labor force; (2) the location of active mines in the California Desert;

1400 EYE STREET, N.W., WASHINGTON, D.C. 20005
(202) 842-3400

(3) important commodities produced in the California Desert, focusing on rare earths production in the desert; (4) strategic materials and the California Desert; and (5) assessing possible sites of future mining in the CDCA. Many of these and related issues are covered in two reports that I presented at the BLM-sponsored California Desert Mineral Symposium in March, 1989. I would like to submit those two papers for the hearing record.

The Role of the Nonfuel Minerals Industry in California

The nonfuel minerals industry (all mineral production except oil, natural gas, coal, and uranium) in California is proportionally not a large contributor to the state economy or employment. There is no measurable production of fuels in the CDCA. According to the U.S. Bureau of Mines, 1986 earnings from the entire nonfuel minerals sector amounted to $292 million, or about 0.09 percent of the $332 billion total nonfarm income for the state. Approximately 8,700 people worked for the nonfuel minerals industry in 1986, or about 0.07 percent of the 13,365,000 worker state civilian labor force. By these measures, the proportional economic contribution of this industry to the state of California is very small.

Location of Active Mines in California and the CDCA

The Division of Mines and Geology of the state of California recently published information on active mines located throughout California. In 1987, there were 806 active mines in the state. Using this information, I conservatively estimated the number of active mines that fell within the confines of the California Desert Conservation Area. Approximately 130 (16 percent) of the 806 active mines are located in the CDCA. About two-thirds of these mines (87) are sited on non-federal land. The remaining 43 mines (5 percent) are located on federal land in the CDCA.

The important question to address is, how many active mines fall within the boundaries of S. 11? The California Department of Conservation now reports that six (0.7 percent of total state mines) of the 43 active mines located on federal land in the CDCA may fall within the boundaries of the California Desert Protection Act. One of the active mines may lie within a proposed wilderness area, and the other five probably fall within the proposed Mojave Park. Therefore, of the 806 active mines in the state of California, 0.7 percent lie on acreage affected by the Desert Bill. The six mines are shown in Table 1.

Table 1 - Active Mines Possibly Inside Proposed Wilderness or New Park Areas

Mine Name	Commodity Produced	Full-Time/ Intermittent Production	Wilderness/ Park Area	Operating Company	Number of Full-Time Employees (approx.)
Haiwee Quarry	Pumice	Full-Time	possibly in Coso Range WSA	Lightweight Processing Company	Unknown
Colosseum Mine	Gold	Full-Time	Mojave Park	Bond Gold	110
PS Hart Mine	Clay	Unknown	Mojave Park	Viceroy Gold	1
Morningstar Mine	Gold	Full-Time	Mojave Park	Vanderbilt Gold	55
Twin Mountain Pit	Stone	Full-Time	Mojave Park	Kiewit and Sons	15
Volco Mine	Gold	Intermittent	Mojave Park	Unitron Corporation	Unknown

Sources: California Department of Conservation, personal communication, and The Wilderness Society.

The commodities produced at these mines are not unique or of strategic significance. However, these mines have apparently established valid existing rights to the minerals contained in the mines. That is, if these mines can prove that they hold a valuable mineral deposit at the time of enactment of the bill, then mining operations will have legal protection. Thus, even if the land surrounding the operations is designated wilderness, mining claims or mines having proof of a valuable mineral discovery on the date of enactment of the Act will retain the legal rights to mine.

Pumice, a lightweight building material, is produced at the Haiwee Quarry. This operation is located in a section containing the boundary of the Coso Range Wilderness Study Area (WSA). Because I can not get an accurate location of the mine from the State of California at this time, I am not certain whether the mine is within the proposed wilderness area. If the mine is inside the Coso Range WSA, it can be no more than about one-half mile from the boundary.

Two moderate- to large-sized gold mines are located in the proposed Mojave Park. Colosseum Mine, the largest of the two mines, produces about 70,000 ounces of gold annually while employing approximately 110 workers. This mine has a projected life of about ten years. Morningstar Mine employs about 55 workers and has a projected annual output of 40,000 ounces of gold.

Another operation, the PS Hart Mine is located on the site of the proposed Castle Mountain Gold Mine. At this time the mine is continuing to produce clay while the operating permit for mining gold at the site is undergoing review.

The three mines mentioned in the previous paragraphs are definitely located within the proposed Mojave National Park, but outside of proposed wilderness areas. Intermittent gold production from an open pit is reported from the Volco Mine. The Twin Mountain Pit is reportedly producing stone. Both of these latter two mines are also outside of wilderness areas but lie within the proposed Mojave Park.

If these five mines are now operating in the proposed park areas they probably can establish valid existing rights to their mineral deposits. Even if the mines were located in a wilderness area within a national park, mineral rights would be protected under S. 11.

I could not find employment data for two of the six mines that may lie within the boundaries of the California Desert Protection Bill. But, the total employment at these six sites is unlikely to exceed 200 workers. The impact of park or wilderness designation to these six mines and the 200 workers is likely to be small or non-existent, due to the valid existing rights probably held by the operators. Two hundred workers represent approximately two percent of total California nonfuel minerals labor force of approximately 8,700 workers.

Important Mineral Commodities Produced in the CDCA

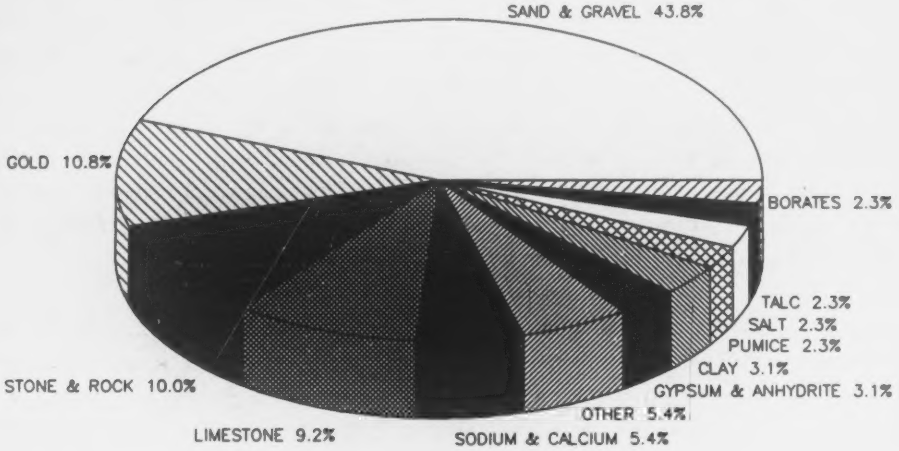
As shown in Figure 1, 88 percent of the active mines in the CDCA produce industrial minerals such as sand and gravel, decorative stone, dimension stone, pumice, limestone, borates, sodium and calcium minerals, feldspar, salt, talc, shale, gypsum, and others. There are 15 active mines in the CDCA that do not produce industrial minerals. Fourteen of these mines yield gold and the remaining mine produces rare earth elements. About 44 percent of all the mines in the CDCA produce sand and gravel. Another 20 percent of the remaining operations mine stone, decorative rock, or limestone.

The BLM reports that $1.1 billion of California's $2.3 billion worth of nonfuel mineral production in 1987 was obtained from the California Desert Conservation Area. About half of the California Desert output, or approximately $450 million of mineral output, can be traced to production of borates. The California Desert is the sole source of national production of this commodity. However, all of the current production of borates is obtained from the Searles Lake and Boron mineral properties. Both of these operations lie well outside the S. 11 boundaries and almost exclusively on non-federal lands.

Rare earths, a group of related elements used for specialty purposes, are another set of commodities with national significance that are produced in the California Desert. The Mountain Pass Mine, located just outside the proposed Mojave National Park, produces about 97 percent of U.S. and about one-third of total Free-World output of these elements. Lately these materials have been subject to increased scrutiny because of possible superconductor properties exhibited by these materials. However, at this time, there is no commercial superconductor technology (at or near room temperature) using rare earths or any other materials. In fact, perhaps one of the most promising superconducting materials does not contain any rare earth elements.

Figure 1 - Commodity Production in the California Desert Conservation Area

About 88 percent of all mineral production in the CDCA consists of industrial minerals.



Source: California Department of Conservation, 1989, personal communication.

Despite the lack of superconductor applications for rare earths, they are used in other specialty applications in the petroleum and steel industries. The Mountain Pass Mine contains approximately 3.6 million tons of rare earths reserves (economically extractable bodies of ore). Total U.S. consumption of rare earths in 1988 was about 10,300 tons. If consumption remained at 1988 levels, the reserves identified and controlled by the Mountain Pass Mine could supply the entire country for about 350 years. Even if demand for these materials tripled, there are enough reserves at this mine alone for more than 115 years of consumption.

The U.S. Bureau of Mines has also identified a number of other potential sources of rare earths production including sites in New York, New Jersey, Florida, Idaho, and a large resource base in beach sands along the Atlantic Coast. According to a 1985 report by the Bureau of Mines, "[T]he United States can be self-sufficient in rare earths...[The U.S.] possesses the world's largest production and separation capacity, and total North American reserves and resources are large."

Another commodity with relatively large production values in the California Desert is gold. In 1987, eight sites in the CDCA reported production of gold totalling about 250,000 ounces. Gold probably currently is the commodity of most interest to domestic mining firms. The largest producer of gold in the CDCA is the Mesquite Mine; other major producers include the Picacho, Cactus Gold, Standard Hill, and Cargo Muchacho Mines. These deposits all lie outside the boundaries of the California Desert Protection Act. As reported above, the Colosseum Mine and the Morningstar Mine both lie within the proposed Mojave National Park but outside proposed wilderness areas.

Other industrial minerals such as talc, gypsum, sand and gravel, limestone, and additional common materials make up most of the remainder of the mineral value produced in the California Desert. In fact, with the exception of gold and rare earths, virtually all of the remainder of the value of mineral production in the CDCA is derived from industrial minerals. Many of these materials are important to the local economy of southern California, but these relatively common minerals are typically available from many alternative sources within California and from other states.

Strategic Minerals and the California Desert

Much publicity has been given to the strategic and critical minerals that are found in the California Desert. Yet the definition of strategic minerals is usually not given and the significance of these materials is rarely explained. The Office of Technology Assessment (OTA) found that the term "strategic mineral" was used very loosely and therefore lost much of its meaning. In 1985, the OTA rigorously examined a large list of materials needed by this country and used the following criteria to determine whether a mineral truly did have a strategic significance:

(1) They are essential for the national defense and other important industries.

(2) No satisfactory substitutes are available for some of their uses.

(3) There is little or no production of any of these materials in the United States (although for some, recycling is significant).

(4) They are supplied largely by a very few countries in a politically unsettled region (central and southern Africa), and this same region, plus the Soviet Union, holds most of the world's known reserves.

The materials identified by the OTA as meeting these criteria included chromium, cobalt, manganese, and platinum group minerals. Another class of materials that met some but not all of the above criteria include bauxite/alumina, beryllium, columbium, diamond (industrial), graphite (natural), rutile (a titanium-containing mineral), tantalum, tin titanium sponge, and vanadium.

None of the 14 materials identified by the OTA as strategic materials is currently under production or has any inactive reserves anywhere in the CDCA. Small amounts of manganese and tin were produced during this century, but no significant production of any of these materials was ever recorded in the California Desert.

Assessing Sites of Possible Future Mining in the CDCA

The mineral industry is fond of reciting the argument that "absence of evidence is not evidence of absence." Following this dictum, even though there is no evidence of mineralization in an area, some valuable mineral deposits may yet be discovered.

An inescapable conclusion of this argument is that public lands should be left unprotected from mineral development even at the expense of known wilderness, wildlife, or other values. This implicitly assumes that mining is always the highest and best use of any lands. We now know that other natural values such as wilderness and recreation may outweigh the speculative mineral values of our public lands.

According to a 1987 report by the Metals Economics Group, there are 30 active and proposed gold mines in California, 14 of which are located in the southern California region. Twenty-seven of the 30 mines in California and 12 of 14 in southern California are located at or very close to sites of significant historical mineral production.

Locations of new mines are not random; most new mines are at or near sites of significant historical mining activity. The Desert Protection Act wilderness and new park boundaries were drawn up to exclude historical mining districts to the maximum extent possible. This fact explains why there is a maximum of one active mine in wilderness areas and just five mines apparently in proposed new park areas. It is likely that the majority of future mines will continue to be found at or near sites of important historical mining activity.

Certainly some new mines may be found outside of old mining districts. The U.S. Geological Survey (USGS) and U.S. Bureau of Mines (USBM) have circulated text and a plate showing their assessment of the lands affected by the Desert Act. The plate prominently features proposed wilderness and new park areas identified as having "Identified Resources and/or High Potential," and "Moderate Potential." A glance at this map would seem to indicate that these agencies find most of the California Desert as having significant mineral conflicts.

For instance, the five largest Wilderness Study Areas are Saline Valley, Kingston Range, Palen/McCoy, Kelso Dunes, and Turtle Mountains. Together these WSAs encompass approximately 1.4 million acres, or almost 20 percent of the 7.5 million acres affected by the proposed legislation. Examining the map supplied by the Geological Survey and Bureau of Mines seems to indicate that the entire 1.4 million acres of these WSAs contains identified resources and/or high potential. Yet, reading the text presented along with the map reveals a much different story.

Only a portion of each of these WSAs contains what the agencies consider regions of identified resources and/or high potential. Estimating from the smaller map shown with the text, Saline Valley contains not 486,000 acres of purportedly valuable mineral acreage, but somewhat less than 10,000 acres. Kingston Range does not have 270,000 acres of reported high mineral potential, but about 50,000.

Counting the acreage in all five WSAs, instead of 1.4 million acres of identified mineral resources and/or high potential, the USGS/USBM report actually says that only about 150,000 acres, or slightly over 10 percent of the WSAs, is contained in this category. Thus, the plate exaggerates the highest value category by a factor of nine.

Conclusions

The nonfuels minerals industry in California provides a small percentage of total state earnings and employment. Nevertheless, the production of certain minerals in the California Desert is important to the country and the local economy. Fortunately, there is no reason to expect that any active mines will be closed by S. 11. There is no production or reserves of strategic minerals in the CDCA. Furthermore, almost 90 percent of the active mines produce industrial mineral output, the majority producing relatively common materials such as sand and gravel, stone, and limestone.

There is one documented occurrence of an active mine that may be located in a proposed wilderness area and five active mines apparently fall within new park areas. Even these six active mines in new park or wilderness areas need only to prove the existence of a valuable mineral deposit prior to the enactment of S. 11 in order to get legal protection of their mining rights. Proof of a valuable mineral is also the only evidence needed for any potential future mines in these areas.

No one can say with certainty where all future deposits of valuable minerals may be found. But, future mining activity is likely to center on past sites of significant mineral production. While no one will ever know the location of all the valuable minerals, we must make intelligent decisions on public lands usage that utilize information on the environmental as well as the mineral values. The California Desert Protection Act would protect public lands with known wildlife, wilderness, and recreation values. The land usage choices shown in the proposed legislation acknowledge the importance of mining in the California Desert and balance the mining and other natural values of the public lands.

RARE EARTH MINERALS, SUPERCONDUCTIVITY, AND THE CALIFORNIA DESERT

by W. Thomas Goerold

Chief Economist-Energy and Mineral Resources
The Wilderness Society

Summary

Rare earths are a group of elements used in the petroleum, metallurgical, and glassmaking industries. Significant further possibilities for rare earth consumption lie with superconductivity applications, although commercial use of these elements is not imminent.

Virtually all domestic production and most of the reserves of rare earths are located at the Mountain Pass Mine in the California Desert Conservation Area outside of new park and wilderness areas proposed under the California Desert Protection Act (S. 11). Reserves of rare earths from this mine could last more than 500 years at current levels of domestic consumption. If demand for rare earths rises much more quickly than the U.S. Bureau of Mines has projected, there are many identified and projected sources of supply for rare earths in this country and North America.

Introduction

Rare earth elements are important mineral commodities with domestic production centered at one location in the California Desert Conservation Area. This report describes the rare earth minerals and their uses. Particular emphasis is placed on the quantity and location of domestic sources of rare earths, especially the rare earth elements located in the California Desert.

What are Rare Earth Elements?

Fifteen commodities are collectively termed the rare earth elements. These elements, having similar chemical and physical properties, are identified as elements 57 through 71 in the periodic table of elements. They are further classified as light and heavy rare earth elements.

TABLE 1- Light and Heavy Rare Earth Elements

Light Rare Earths	Atomic Number	Heavy Rare Earths	Atomic Number
lanthanum	57	gadolinium	64
cerium	58	terbium	65
praseodymium	59	dysprosium	66
neodymium	60	holmium	67
promethium	61	erbium	68
samarium	62	thulium	69
europium	63	ytterbium	70
		lutetium	71

Two principal types of ores -- bastnasite and monazite -- contain the rare earth elements mined in the United States. Virtually all of U.S. rare earth element production comes from bastnasite, and this ore type also accounts for most rare earth reserves[1] (U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, p. 651). Bastnasite is a hardrock ore that contains rare earths combined with fluorine, carbon, and oxygen. Open pit mining methods are used to extract this ore.

Monazite is an ore type consisting of rare earth elements combined with phosphorus and oxygen and found in highly concentrated deposits, usually beach sands. Only a small fraction of U.S. rare earths production and reserves are obtained from monazite. Indeed, rare earths are produced only as a byproduct when these beach sands are mined. Domestic monazite deposits are primarily exploited for their titanium and zirconium content.

Uses of Rare Earth Elements

Currently, a great deal of scientific research and public attention are being directed toward the field of superconductivity. Superconducting material can transmit electricity much more efficiently than copper and other substances in wide use today. As a result of this greater efficiency in electrical transmission, significant cost savings may be realized as less fossil fuel or nuclear power will be required to generate the same amount of electricity. In addition, specific applications for superconducting material will likely be found in electric motors, lighting, electromagnets, magnetically levitated trains, and a host of other electrical uses.

Functioning superconducting devices now exist. Unfortunately, most of them require very low operating temperatures that can only be maintained through the use of liquid helium, a costly coolant. Attempts are thus being made to find materials that exhibit superconducting properties at or near room temperature. One of the technologies uses a material composed of barium, copper, oxygen, and the rare earth lanthanum. Interestingly, as of this writing, the material showing superconducting properties at the highest temperature contains bismuth, but no rare earth elements.

Although breakthroughs in room temperature superconductivity have occurred, actual devices to achieve this goal are far from commercial application. All experimentation is still at the laboratory scale. Substances that do show superconductivity at elevated temperatures typically exhibit this property only within a small portion of the material.

Superconductivity experiments account for an immeasurably small fraction of rare earth consumption in the U.S., however. These elements have a number of other uses, as displayed in Figure 1. In 1986, almost half of rare earths used domestically were employed in the petroleum industry (U.S. Bureau of Mines, 1987, *Mineral Commodity Summaries*, p. 126). Rare earths in this industry aid in cracking long hydrocarbon chains of crude oil into smaller, less complex hydrocarbons such as gasoline, diesel fuel, kerosene, and other products.

About one-third of U.S. rare earth consumption during 1986 helped impart special properties to iron and steel and other metals. Such metallurgical applications allow for control of the sulfur and oxygen content in the metals. Moreover, rare earths improve the cold formability, impact resistance, high temperature oxidation resistance, and other attributes of the final steel products.

The glass-making industry is also a major consumer of rare earths. In 1986, 18 percent of U.S. rare earth consumption was used as colorizing and decolorizing agents and to provide protection from ultraviolet radiation in various types of glass. Other rare earth elements contribute to phosphors in color television sets, and as components in electronic devices and in permanent magnet electric motors.

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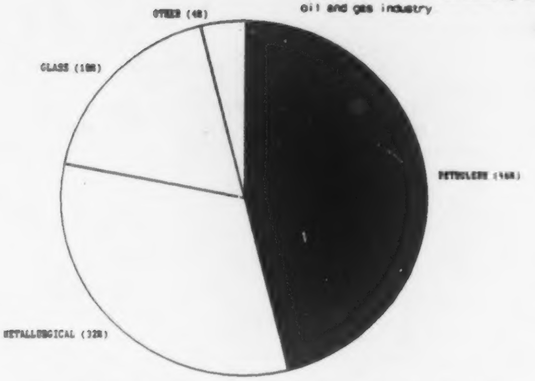
[1] Reserves are identified minerals that are economic to produce under current market conditions and may be mined in future years.

Almost one-half off all rare earth elements used in the U S were consumed by the oil and gas industry



Source: U.S. Bureau of Mines, 1987, Mineral Commodity Summaries

Figure 1- U.S. Consumption of Rare Earth Elements, 1986

Domestic Sources of Rare Earth Elements

Approximately 97 percent of U.S. and 33 percent of world rare earth elements production in 1986 came from one mine located in the California Desert Conservation Area (U.S. Bureau of Mines, 1987, *Mineral Commodity Summaries*, p. 126). The Mountain Pass Mine is 50 miles west of Las Vegas, Nevada, in the Clark Mountains of eastern California. Ore grade at Mountain Pass averages 12 percent bastnasite, making it the richest grade mine of rare earths in the world (U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, p. 651).

Reserves of rare earth elements at Mountain Pass total 3.6 million tons of rare earth oxides (REO) (U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, p. 651). Total U.S. consumption of rare earths in 1987 was 10,300 tons REO, a five-year low (U.S. Bureau of Mines, 1988, *Mineral Commodity Summaries*, p. 126). At this rate of consumption, identified reserves of rare earths at the Mountain Pass Mine alone could supply the needs for the entire country for 534 years.

As a benchmark portraying the enormous size of the rare earths reserves, Table 2 (depicted graphically in Figure 2) shows the corresponding U.S. consumption and reserves for several other more common commodities. The identified reserves of rare earths exceeds the level of identified reserves for other commodities as much as 80-fold.

TABLE 2- U.S. Reserves and Consumption of Selected Minerals, 1987

Commodity	Unit	Domestic Consumption	Domestic Reserves	Reserve to Consumption Ratio
				(years)
Rare Earths	tons	10,300	5,500,000	534
Copper	tons	2,190,000	57,000,000	26
Gold	ozs.	2,800,000	117,000,000	42
Lead	tons	1,130,000	11,000,000	10
Silver	ozs.	144,000,000	920,000,000	6
Zinc	tons	990,000	21,000,000	21

Source: U.S. Bureau of Mines, 1988, *Mineral Commodity Summaries*, various pages.

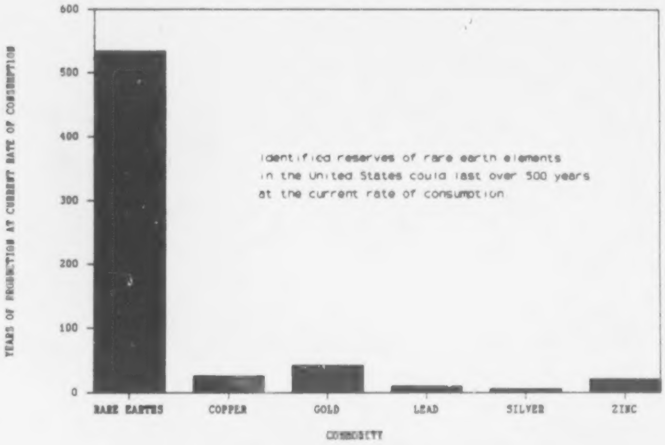


Figure 2- Adequacy of Current U.S. Reserves for Selected Commodities

Although the U.S. has identified reserves of silver for only six years at the current consumption rate, no one is mounting an exhaustive exploration campaign for this precious metal because current stocks, sources of reliable imports, and domestic sources of secondary metal are considered adequate. Another notable feature is that all of the selected commodities, except for rare earths, have domestic reserves in tens or even hundreds of mines throughout the country. Currently, virtually all domestic reserves of rare earth elements are located at the Mountain Pass Mine. This measure of apparent rare earth abundance could be misleading if these elements are exhibiting a dramatic growth in consumption. However, overall demand, and especially petroleum refining, the major single use of rare earth elements is currently declining in this country and may continue into the future.

It is conceivable that the demand for rare earth elements could rise significantly if superconductive technologies are implemented. This increase in demand could occur even though the current major use for rare earth elements, as catalysts in petroleum refining, has been decreasing and is projected to continue a downward trend. Increased demand would provide an incentive for further exploration for rare earths. However, even if domestic consumption of rare earth elements tripled over the 1988 level, currently known national reserves could supply domestic needs for over 175 years. Under the current demand scenario, it is unlikely that many new sources of rare earth elements will be utilized in this country.

Yet, known sources of rare earths exist in the U.S. outside of the Mountain Pass Mine. Byproduct recovery of rare earth elements from iron ore tailings in New York and New Jersey and phosphate rock in Florida and Idaho could occur if high levels of demand develop (U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, p. 663). In addition, large resources of monazite and other heavy mineral sands containing rare earths off the Atlantic Coast could be a major source of supply. As the U.S. Bureau of Mines states "[T]he overall assessment is that the United States can be self-sufficient in rare earths...[the U.S.] possesses the world's largest production and separation capacity, and total North American reserves and resources are large" (U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, p. 659).

REFERENCES

U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, 956 pp.

U.S. Bureau of Mines, 1987 and 1988, *Mineral Commodity Summaries*, 189 pp. and 193 pp.

MINING AND THE CALIFORNIA DESERT

by W. Thomas Goerold

Chief Economist-Energy and Mineral Resources
The Wilderness Society

Summary

Considerably less than one percent of the population and economy of California is involved with nonfuel minerals production. Although the California Desert Conservation Area produces significant quantities of some minerals, much of the value of mineral production is derived from private lands that would be unaffected by any legislation. Additionally, the bulk of the remaining value of mineral production from the California Desert is confined to the low unit-value construction materials, many of which are available elsewhere.

Claimholders on federal lands in the CDCA would be protected by valid existing rights from any change in land status due to legislation. Current holders of mining claims on these lands need only prove the presence of economic quantities of minerals in order to continue to hold title to these commodities.

Nowhere in the California Desert are there any current mining operations or reserves of strategic or critical materials. While it is often asserted that the CDCA holds many strategic or critical deposits, the Office of Technology Assessment maintains that all but 14 commodities can be obtained from domestic or secure foreign sources. None of the 14 strategic or critical materials identified by the OTA are currently produced in the California Desert.

Mineral mining proponents claim that the proposed California Desert Protection Act would close off areas of mineral mining potential from possible exploration and future production. Yet, an analysis of gold mines in California reveals that 90 percent of all current and proposed gold mines in the state are located on sites with historical mining activity. The proposed legislation has excluded, to the extent possible, all sites with significant historical mineral production in order to minimize the impact of desert protection on future mineral endeavors.

I. Purpose and Structure

This paper analyzes the role of mining and mineral processing in the state of California with emphasis on the California Desert Conservation Area (CDCA). In particular, the study assesses the potential impact of wilderness designation on current and future mineral production from public lands in the CDCA.

This report begins with an introduction to the California Desert region and a description of proposed legislation affecting the region, followed by an overview of the CDCA and California mining industries. Section IV details the mining practices on public lands and the related importance of the Mining Law of 1872. The paper next considers the issue of strategic and critical materials in the California Desert and then concludes with a discussion of the problem of determining the mineral production potential of the vast public land acreage in the California Desert.

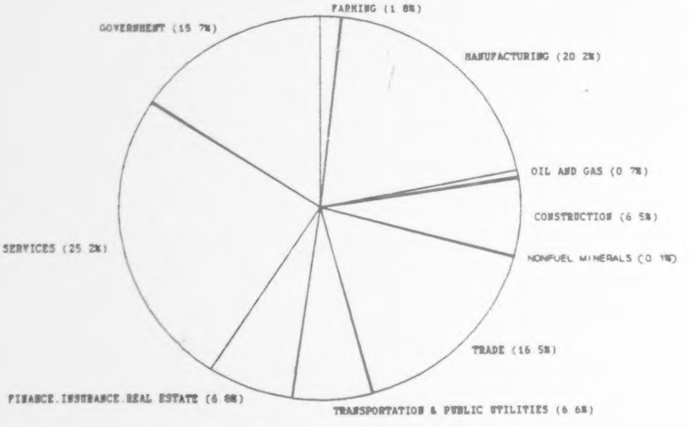
II. Introduction

The California Desert Conservation Area, also referred to in this paper as the California Desert, consists of 25 million acres in southeastern California. This unit was established by the Federal Land Policy and Management Act of 1976 (FLPMA). The Act instructed the Bureau of Land Management (BLM) to study land allocation alternatives aimed at maintaining the pristine quality of the desert while minimizing conflicts over possible multiple uses of the land. Added to this challenge are the mixed ownership patterns in the region. Although much of the land in the CDCA is under state or federal control, about one-half of the land in the California Desert is privately owned.

Just recently, Senator Alan Cranston of California reintroduced the California Desert Protection Act (S. 11) and Congressman Mel Levine submitted the House version of the same legislation. This bill seeks to classify approximately 7.5 million acres of the CDCA as national park or wilderness areas, preserving scenic and roadless lands in their current state.

III. The Minerals Industry in California and the CDCA

Mining does not play a major role in the economy of California. In 1985, only 0.07 percent of the state's labor force was employed in the production and processing of nonfuel minerals. This means approximately 8,800 people out of a total labor force of 12,937,000 were engaged in nonfuel mining-related activities (Data derived from U.S. Bureau of Mines, 1985, *Minerals Yearbook*, Volume 2, p. 91). As depicted in Figure 1, total industry earnings derived from nonfuel mineral production in 1985 amounted to about $350 million, or 0.1 percent of the $312,761 million generated by all industries in California (Data derived from U.S. Bureau of Mines, 1985, *Minerals Yearbook*, Volume 2, p. 93).

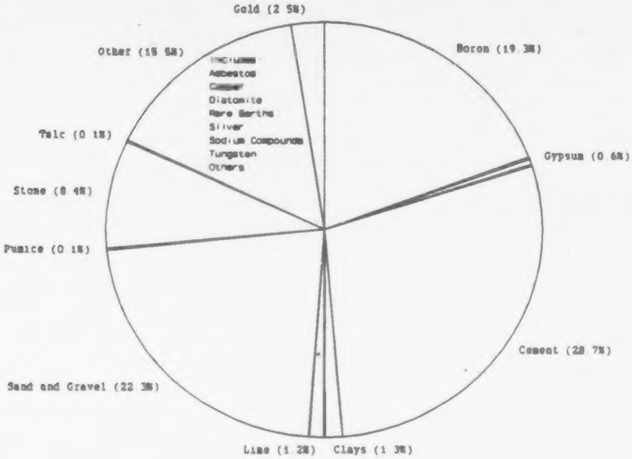


Source: U.S. Bureau of Mines, 1985, Minerals Yearbook

Figure 3- Sources of Industry Earnings by Sector in California, 1985

In 1986, total sales by the nonfuel mineral industries in California amounted to $2.3 billion. However, nearly half -- $1.1 billion -- of these nonfuel mineral revenues were derived from the California Desert (BLM, 1987, The California Desert: Its Mineral Wealth and Potential, p. 2). Mineral output from the desert reportedly included 100 percent of domestic borates production, 97 percent of the country's rare earth minerals, 15 percent of the talc, 10 percent of the gypsum, and 6 percent of the metallic minerals production (BLM, 1987, The California Desert: Its Mineral Wealth and Potential, p. 2). Thus, while nonfuel mining represents a very small component of California's income and employment, mineral production from the California Desert represents a large proportion of total state output.

More than $400 million worth of minerals produced from the desert in 1985 was derived from borate production (U.S. Bureau of Mines, 1985, *Minerals Yearbook*, Volume 2, p. 91). The bulk of borate output is produced from two localities located on private land outside of the proposed protected areas in the CDCA. Most of the remaining $700 million of mineral output in the desert was obtained from production of other industrial materials, including large tonnages of relatively low value commodities such as sand and gravel, clays, gypsum, talc, and portland cement. In fact, production of industrial minerals accounted for more than 95 percent of the value of mineral output in the state of California (Data derived from U.S. Bureau of Mines, *Minerals Yearbook*, 1985, Volume 2, p. 91). (See Figure 2)



Source: U.S. Bureau of Mines, 1985, Minerals Yearbook

Figure 4- Value of Mineral Production in California, 1985

The most valuable metallic minerals produced from the CDCA are gold and rare earth metals[2]. About $115 million of gold and $30 million of rare earths were produced from the California Desert in 1987 and 1986 respectively (Data derived from Metals Economics Group, 1987, *A Study of Active U.S. Gold Mines* and U.S. Bureau of Mines, 1987, *Mineral Commodity Summaries*). All rare earths were produced from a single mine located outside the proposed Mojave National Park and the Wilderness Study Area in the Clark Mountains. Eight sites in the CDCA reported production totalling about 250,000 ounces of gold in 1987 (Metals Economics Group, 1987, *A Study of Active U.S. Gold Mines*).

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[2] Rare earth metals contain elements 57 through 71 on the periodic table of elements, including elements lanthanum, europium, lutetium, and other lesser-known elements. Specialty applications for iron and steelmaking, petroleum refining, and glassmaking are the major uses for the rare earths (see Goerold, 1988).

IV. Public Lands, Mining Claims, and the Mining Law of 1872

Metallic commodities produced from federal lands in the California Desert are mined by companies holding mining claims. Firms obtain exclusive rights to most metallic minerals on federal lands by showing proof of discovery of a valuable deposit. The mining companies then must perform the equivalent of at least $100 worth of work on each claim per year to continue to hold exclusive rights to the minerals.

The current legal framework for mining claims dates back to the Mining Law of 1872. The primary purpose of this law was to encourage the exploration and economic development of the federal lands in the West. In 1872, the federal government assumed that the highest and best use of the large acreage of the empty public lands in the West was for the mining of mineral commodities. Since that time, although the basic requirements for filing mining claims have not altered, the population of the U.S. and California has multiplied greatly and the demands placed on the federal lands have changed.

Claimholders who have shown proof of discovery of a valuable mineral deposit hold what is known as valid existing rights. These rights supersede later actions that might affect land use. Thus, even if a claimholder controls land in the middle of an area that may later be classified as a wilderness or park area, the claimant continues to hold the rights of access and production of the minerals on the valid claim.

All current mineral producers on federal land in the California Desert hold valid existing rights and therefore have the legal protection from changes in land status. Claimholders in the California Desert that are not currently producing minerals may still hold valid existing rights if they can prove that they have found a mineral discovery of value. However, if the claimholders cannot prove a discovery following reclassification of federal lands in the California Desert, they would be forced to relinquish their claims.

The net result of the California Desert Protection Act on federal lands in the CDCA would be that individuals or firms with proof of valid claims will continue to have the rights to minerals on those claims. Claimholders who can not show the presence of valuable minerals must give up their claims.

V. Strategic and Critical Materials and the California Desert

The Bureau of Land Management reports that the California Desert contains 24 strategic and 3 critical materials (BLM, 1987, The California Desert: Its Mineral Wealth and Potential, p. 3). According to the BLM analysis, strategic materials are essential for national defense and critical materials are essential to the needs of the United States.

There is no single definitive source that describes which materials are strategic or critical. The reference that is possibly used in the BLM report cited above mentions at least 42 items that are important to national defense and industry (Federal Emergency Management Agency, 1986, *Stockpile Report to Congress, October 1985 - March 1986*, pp. 54-55). However, the majority of these materials are produced within the United States or are obtained from a stable and low-cost supply from other countries. As stated in an Office of Technology Assessment (OTA) report on strategic materials, "[T]he Nation should seek materials wherever they may be found, at the least cost and consistent with national security and the welfare of friendly nations." (OTA, 1985, *Strategic Materials: Technologies to Reduce U.S. Import Vulnerability*, p. 45). This agency's analysis asserts that materials obtainable at low cost from secure foreign suppliers are preferable to domestically-mined materials acquired at many times the cost of the foreign materials.

Using the above criteria, OTA maintains that there are actually only 14 strategic materials. According to the OTA evaluation, a material's strategic attributes are based on the critical nature of its uses and the vulnerability of its supply. Data covering 86 nonfuel materials from the U.S. Bureau of Mines allowed the OTA to eliminate from strategic status all materials in which the U.S. is a net exporter. Two other criteria used to eliminate materials from strategic designation are materials for which the U.S. relies on Canada and commodities that have a high degree of geographical and political diversity in their production.

The list of strategic materials that resulted from the OTA analysis is divided into two tiers, as shown in Table 1. The first tier represents the materials that satisfied all of the criteria listed below for defining a strategic material.

> "[The materials in the first tier] clearly met all of [these] criteria...
>
> 1). They are essential for the national defense and other important industries.
>
> 2). For some of their essential uses no satisfactory substitutes are available.
>
> 3). There is little or no production of any of these materials in the United States (although for some, recycling is significant).
>
> 4). They are supplied largely by a very few countries in a politically unsettled region (central and southern Africa), and this same region, plus the Soviet Union, holds most of the world's known resources."
> (OTA, 1985, *Strategic Materials: Technologies to Reduce U.S. Import Vulnerability*, p. 52).

The materials in the OTA's second tier of importance met some but not all of the above criteria.

TABLE 1- Strategic Materials Identified by the Office of Technology Assessment

First Tier	Second Tier
chromium	bauxite/alumina
cobalt	beryllium
manganese	columbium
platinum group metals	diamond (industrial)
	graphite (natural)
	rutile
	tantalum
	tin
	titanium sponge
	vanadium

Source: Office of Technology Assessment, 1985, *Strategic Materials: Technologies to Reduce U.S. Import Vulnerability*, p 52.

None of the first or second tier strategic materials are currently produced or have reserves (economically producible deposits) in the 25 million acre-California Desert Conservation Area. Prior to 1945, 48,000 pounds of tin was produced from one mine in the CDCA, outside of proposed new park and wilderness areas (BLM, 1982, *California Desert Conservation Area Final Environmental Impact Statement and Plan: Appendix XIV Geology-Energy-Minerals*, p. 111). In addition, a small quantity of manganese was produced from the CDCA, largely outside of proposed new park and wilderness areas, apparently under subsidies administered by the federal government during World War II (BLM, 1982, *California Desert Conservation Area Final Environmental Impact Statement and Plan: Appendix XIV Geology-Energy-Minerals*, p. 100). The U.S. Bureau of Mines notes that the

National Research Council concluded "...[domestic land-based resources of manganese] should not be developed except in a dire emergency." (reported in U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, p. 486). They report that in an emergency situation the two best deposits for development are located in the Cuyanuna Range of Minnesota and in Aroostook County, Maine.

VI. Mineral Production Potential of the California Desert

A common argument forwarded by mining interests in discussing the mineral endowment of the California Desert is that "absence of evidence is not evidence of absence." According to this dictum, even though there may be no indications of potential mineralization in a region, some valuable materials may be discovered for exploitation in the future.

This argument concludes that public lands should be left open to speculative future mineral production even at the expense of known wilderness, wildlife and other values. Such a policy would implicitly assume that mining -- even in areas with unknown potential -- is the highest and best use of the land. As discussed in section III, mining may have been the highest and best use in 1872 when the Mining Law was enacted. At the present time, however, the value of the wildlife, wilderness, and recreation attributes of the public lands may outweigh the benefits of mineral production.

The mining industry's argument is not totally without merit. New technologies may be found that can identify and extract minerals at lower costs, or new deposits may be discovered that have been overlooked by previous mineral exploration. However, criteria must be established to determine areas with the greatest potential for future mineral production.

An examination of currently operating and proposed new mines reveals what criteria are likely to be used to find future mines. The commodity of greatest interest to most metallic mining companies over the past 20 years has been gold. Most new gold mines are not located in areas that have never been mined. In fact, one of the foremost indicators of mineral potential is the presence of historical mining activity. There are 30 active and proposed gold mines in California, 14 of which are located in the California Desert (Data derived from Metals Economics Group, 1987, *A Study of Active U.S. Gold Mines* and *Potential New U.S. Precious Metal Production*). Twenty-seven of the 30 mines in California and 12 of the 14 mines in the California Desert are located on the sites of old mining districts.

The significance of new gold mines located at historical mining sites is that the mineral potential of the California Desert can be assessed with greater confidence when these historical mining sites are identified. The California Desert Protection Act has drawn wilderness boundaries to exclude areas with historical mining activity where feasible. This legislation recognizes the fact that it is likely that future mining activity will take place in areas that have already been mined in the past. Although no one can say with certainty that a particular site will never be mined, the exclusion of most historical mining areas from wilderness areas should minimize likely future mineral conflicts.

REFERENCES

Bureau of Land Management, 1982 (revised), *California Desert Conservation Area Final Environmental Impact Statement and Plan: Appendix XIV Geology-Energy-Minerals*, 208 pp.

Bureau of Land Management, June 1987, The California Desert; *Its Mineral Wealth and Potential*, 5 pp.

Federal Emergency Management Agency, October 1986, *Stockpile Report to the Congress: October 1985-March 1986*, 61 pp.

Goerold, W.T., January 1988, *Rare Earth Minerals, Superconductivity, and the California Desert*, report issued by The Wilderness Society, 6 pp.

Metals Economics Group, April 1987, *Potential New U.S. Precious Metal Production*, 529 pp.

Metals Economics Group, July 1987, *A Study of Active U.S. Gold Mines*, 517 pp.

Office of Technology Assessment, May 1985, *Strategic Materials: Technologies to Reduce U.S. Import Vulnerability*, 409 pp.

U.S. Bureau of Mines, 1985, *Mineral Facts and Problems*, 956 pp.

U.S. Bureau of Mines, 1985, *Minerals Yearbook, Volume II Area Reports: Domestic*, 635 pp.

U.S. Bureau of Mines, 1987, *Mineral Commodity Summaries*, 189 pp.

Ecological Values of the California Desert

by

Dennis D. Murphy and Kathy M. Rehm

Center for Conservation Biology
Department of Biological Sciences
Stanford University

The Wilderness Society

Table of Contents

Page

PREFACE ii

EXECUTIVE SUMMARY iii

INTRODUCTION 1
  General Characteristics of the California Desert 1

BIOTIC RESOURCES 4
  Soil 4
  Plants 4
  Animals 5

SPECIAL NATURAL COMMUNITIES 8
  Desert Dunes 8
  Joshua Tree Woodland 9
  Riparian Zones 9
  Desert Washes 10
  Mountaintop Refugia 11
  Research Value 11

THE IMPACT OF HUMAN ACTIVITIES 13
  Fragmentation 13
  Off-road Vehicles 14
  Grazing 15
  Mining and Energy Resources 16

RECOMMENDATIONS FOR PROTECTING THE DESERT ECOSYSTEM ... 17

ACKNOWLEDGEMENTS 19

REFERENCES 20

Appendix: A Partial List of the California Desert's Rare, Endangered, Threatened, and Sensitive Species 23

PREFACE

There is a popular misconception about the arid wildlands of the American Southwest--that they are for the most part barren wastelands of little ecological value. It is a misconception that blinds people to both the biological significance and fragility of these lands.

In an effort to correct this perception, The Wilderness Society has prepared this report on the ecological values of the California Desert. It examines the biological resources of the region, focusing on rare or unusual species and the value of the desert for scientific research. The report also discusses the impacts of various activities such as off-road vehicles, mining, and grazing, on the desert ecosystem.

The authors of this report are Dennis D. Murphy and Kathy M. Rehm. Dr. Murphy is director of the Center for Conservation Biology at Stanford University; Ms. Rehm is a research associate at the center. We are grateful to the authors and the center for undertaking this study.

We hope the report will provide useful information to all those concerned about the future of the California Desert. It is one in a series of reports on the ecological values of Bureau of Land Management wildlands being prepared by various authors under the direction of Dr. David S. Wilcove, senior ecologist at The Wilderness Society.

George T. Frampton, Jr.
President
The Wilderness Society

Peter M. Emerson
Vice President
Resource Planning and Economics

EXECUTIVE SUMMARY

The 25 million-acre California Desert is one of our nation's most diverse and fragile ecosystems. It contains a spectacular variety of landforms, soil types, and topography that together comprise a mosaic of natural habitats. Lush green riparian zones and desert washes, isolated mountaintop white fir forests, Joshua tree forests and desert dune systems are only a few of the California Desert's myriad communities. Each is an essential component of the California Desert ecosystem and each provides a unique set of challenges and resources to its inhabitants. California Desert plants and animals have developed remarkable adaptations that allow them to survive--and thrive--in the water-poor, hot desert environment. The California Desert also contains a number of rare, threatened, endangered, or sensitive species--those restricted to relict habitats and those with special arid-land adaptations.

The diversity of the desert offers unequalled opportunities for scientific research. Indeed, the California Desert has long been the subject of numerous studies in fields as diverse as botany, zoology, geology, ecology, paleontology, and geography. Studies of the ways in which desert species respond to aridity and salinity may significantly contribute to the development of new agricultural or industrial products. Understanding the adaptations of plants to these arid environments will be an especially important part of agricultural research as our global environment changes due to the "greenhouse effect." There is no way to know today which species' genes might allow geneticists to create drought-resistant crops, which species could facilitate development of important fuel alternatives, or which organisms hold the secrets to new medicines. Protection of the entire suite of desert plant and animal species is the only sure way to preserve such future opportunities.

These values--the biological diversity of the desert and the research opportunities it creates--are threatened by ever-increasing human pressures. Mining, grazing, agriculture, and other forms of development in the California Desert are fragmenting natural habitats, degrading wildlands, and causing population declines in sensitive species. Increased erosion and depletion and pollution of groundwater due to mining and energy development are damaging parts of the California Desert. Herds of domestic sheep and cattle and feral horses and burros wander through the desert, trampling smaller plants and animals and eating vegetation otherwise available to native wildlife. Throughout the desert, off-road vehicles (ORVs) are compacting soils; tire tracks left on the desert's surface become funnels for rainfall runoff and alter the natural availability of water for plants and animals. ORVs also damage and kill vegetation, including delicate microfloral crusts that protect the fragile desert soils, centuries-old plant populations, and subsurface seed banks. The animals that depend on this vegetation for cover or food are also harmed, either directly by the ORVs or indirectly by loss of habitat.

The impacts of human disturbance and habitat fragmentation in the California Desert are best mitigated by protecting large, contiguous areas of wildlands. The ecological values of this region are uniquely significant and sufficiently vulnerable to justify preservation.

INTRODUCTION

Infernal heat, parched explorers crawling toward shimmering mirages, thirsty winds--to many, the desert seems a still world of desolation and death. Yet to the careful observer, the desert is a changing, diverse landscape--a land that presents extreme challenges to its inhabitants, both human and non-human. The diversity of our California Desert ecosystem; its challenging, ever changing environment; and its storehouses of geological and biological history set it apart as a place of life, richness, and mystery.

This report presents an assessment of the ecological values of the California Desert. It begins with a description of the physical attributes and plants, animals, and natural communities characteristic of the area. Next, the report discusses the impacts of various activities such as off-road vehicle use, grazing, and mining on the desert ecosystem. The report concludes with recommendations for long-term protection of the biological resources of the California Desert.

General Characteristics of the California Desert

Deserts are natural ecosystems, created by complex interactions between topography, global air circulation patterns, and ocean currents. While they are characterized by low soil moisture, low air humidity, and temperature extremes, the defining and most challenging characteristic of deserts is their aridity. Scant precipitation, frequent drying winds, and temperature extremes (caused in part by the lack of temperature-ameliorating cloud cover) make water a valuable commodity. When water is available, it can be superabundant, arriving in violent cloudbursts followed by rapid, eroding runoffs that, along with wind erosion, scour and sculpt the desert landscape.

The world's natural deserts should not be confused with the degraded lands that arise from the complex process called "desertification." Mankind, faced with its own increasing population and demands on resources, is systematically converting other ecosystems to less productive environments that, because of their aridity, resemble desert ecosystems. This process, known as desertification, is not habitat creation but habitat destruction, and it is commonly caused by overcultivation, deforestation, or overgrazing. Such intensive land use can deplete vegetation and initiate a cycle of increasing dryness. Where less plant cover and atmospheric humidity are available to intercept solar radiation, land becomes increasingly exposed to the sun. Bare, dry soil is easily eroded and supports even less plant growth. Increased pressure on remaining vegetation ultimately creates a dry, eroded landscape unable to support life. The well-documented expansion of desertified lands in Africa's Sahel region and the resultant displacement and starvation of millions of local people exemplify the desertification process. The conversion of woodland or rangeland into wasteland is not a replacement for preservation of natural and far more productive desert ecosystems; rather, it presents distinct political, agricultural, and ecological problems.

In North America, natural air circulation patterns have created extensive deserts near the west coast of the United States and Mexico. Beginning in the north with the Great Basin desert (which occupies most of Nevada and parts of Oregon, Idaho, Wyoming, Arizona and California), the desert region includes the smaller Mojave Desert (falling largely in California and also in Nevada and Arizona), the Sonoran Desert (with its westernmost part in California and which extends to Arizona, Baja California and Mexico), and the southernmost Chihuahuan Desert (reaching from southern New Mexico and western Texas far into Mexico).

The Great Basin, Mojave, and Sonoran (also called Colorado) Deserts comprise nearly 30 million acres, or about 25 percent of the state of California. Together they are generally referred to as the California Desert. Mountain ranges surround and dominate the desert's diverse physical structures: Gently sculpted, shifting sand formations--the north's Eureka sand dunes, and the tall Kelso dunes, the dun-colored Imperial dunes in the south; the Colorado, the Mojave, and the Amargosa rivers--remnants of a wetter, cooler past; Death Valley, a 190 mile-long trough bordered by alluvial fans and steep mountains; and highlands littered with oyster shell deposits, markers of the days when the desert was a part of the ocean floor (Ginsberg et al. 1976).

The California Desert's range of habitats--from expanses of flat scrubland with lush outcrops of riparian vegetation to remnant cool fir forests and wind-sculpted dunes--has allowed an incredible number and diversity of organisms to meet the constant challenges of desert life. Over geological time, global and local climate patterns have changed and with them the distribution and adaptations of desert species. In these natural climate patterns and in the responses of organisms to them may well lie the answers to questions mankind is now asking about a future warmer, drier planet.

Stereotypical desert images of endless dunes and parched flat lands stretching to the horizon are challenged in southern California, where the Mojave and Sonoran deserts comprise most of the California Desert. Because the California Desert is geologically young, many of its features are rugged, not yet eroded or scoured into low relief. The resultant wide variety of landforms and soil conditions has created an unequalled diversity of climatic and ecological situations. The Mojave, a high desert (most of it lies more than 2000 feet above sea level), is legendary for its lack of rain and its scorching summers and chilling winters. In the lee of the Sierra Nevada Mountains, the Mojave is subject to subtropical influences only during the summer months; in the arid wintertime, temperature lows are commonly well below 0°C (Glazner and Bilodeau 1980). In addition to its climatic variation, the Mojave encompasses a great range of geologic history, from ancient pre-Cambrian rock formations more than 650 million years old in the Providence Mountains to volcanic deposits just 1000 years old (Philippe S. Cohen, pers. comm.).

Basin and range geography in the northern Mojave desert, broad valleys and fans to the west, and large valley systems and mountain ranges to the east present a wide variety of environmental conditions to which species have adapted (DeDecker 1984).

The high desert is particularly known for its Joshua tree (Yucca brevifolia) woodland, alkali sink saltbush (Atriplex spp.) assemblages, creosote (Larrea tridentata) scrub, and Mojave yucca (Yucca schidigera) plant communities. Wildlife characteristic of the Mojave includes bands of threatened bighorn sheep (Ovis canadensis) on the crests of desert mountains, the endangered desert tortoise (Gopherus agassizii) and rarely observed two-inch-long pupfish (Cyprinodon spp.) in Death Valley National Monument. Among these plants and animals is a large collection of endemic species--plants and animals found nowhere else on Earth.

Just southeast of the San Bernardino Mountains, California's lower desert, the Sonoran, abuts the Mojave. The Sonoran is the largest, lowest, hottest, and driest desert of the southwestern United States. Nonetheless, it boasts marshlands, oases and riparian species assemblages. Sonoran Desert landforms include sand sheets and natural pavements in the east mesa region; plains, washes and rain-storm bajadas (alluvial fans that have melded) to the south; and low hills, playas, sandy plains and washes to the west.

Within this diverse topography are habitats for a variety of desert animals, some of which the Sonoran Desert shares with the Mojave. A wealth of lizard and snake species (including the endangered Coachella Valley fringe-toed lizard, Uma inornata) occupy the Sonoran's topographically and climatically diverse habitats. The avifauna is rich in both migratory and resident birds: The roadrunner (Geococcyx californianus), the tiny elf owl (Micrathene whitneyi) and Le Conte's thrasher (Toxostoma lecontei) are but a few Sonoran Desert inhabitants (State of California Resources Agency et al., 1980).

BIOTIC RESOURCES

The biological richness of the California Desert has inherent value: The high degree of topographic relief and the resulting varied matrix of habitats support a variety of species assemblages and communities. In addition, many species in the California Desert are found nowhere else on Earth. Many such endemic organisms are restricted to small patches of remaining habitat; others, more widely distributed, are declining to population densities too low for successful reproduction. From soil-dwelling invertebrates to large-bodied mammals, the diverse biotic resources of the California Desert depend on protection of the ecosystem as an intact system.

Soil

The desert ecosystem of plants, animals and microbes interacting with their environment is, like all ecosystems, a balance of physical resources and interactions among living organisms. Soil, the physical and chemical base of the ecosystem, is especially fragile in the desert because of the paucity of organic matter and bacteria. Because desert soils form very slowly, they are essentially nonrenewable resources on a human time scale.

Fierce winds and infrequent but heavy rains pound, shape and move the desert soil. When rainwater evaporates, it leaves a crystallized solute on which lichens and algae grow to form a protective but delicate crust that binds the soil together. Yet just a single heavy footstep on this crust can expose bare soil below to the violence of desert weather. In some areas, layers of small, tightly packed rocks--natural desert pavements of sorts--also protect the soil. Vegetation plays a key role in preserving soil by breaking up wind gusts and protecting ground surfaces from raindrop erosion; lichen, fungal and algal crusts protect underlying substrates from water and wind. In addition, the shallow root systems of desert shrubs and trees can bind soil particles together, helping to stabilize the soil.

Plants

As the organisms responsible for generating food from the sun's energy, desert plants are challenged to grow and reproduce in this water-scarce environment and have developed a number of adaptations to temperature extremes and irregular aridity. Succulents and cacti, of course, store water in their stems rather than waiting for infrequent rainfall. Other desert species simply take advantage of local surface water and grow only in marshes or other riparian areas. Some perennial plants have both tap root and lateral root systems, which allow them to reach deep groundwater as well as the rainfall that evaporates before it can permeate the dry desert soils. The taproots of mesquite (Prosopis juliflora) and palo verde trees (Cercidium spp.) can find groundwater more than 20 yards below the dry surface of the desert. Many desert annuals, in contrast, survive the dry parts of the year as seeds, awaiting seasonal rains that can prompt eruption of spectacular blankets of colorful flowers. The seeds of some ephemeral annual plants may lie dormant for many years; once moisture and temperature conditions are suitable for germination, plants can appear within as few as three days, and grow, blossom and seed within just a few weeks.

In the desert, a plant's remarkable ability to transform light energy into carbohydrates can be a costly liability. The pores that allow carbon dioxide in also allow precious water to evaporate; desert plants have evolved various strategies for preventing or reducing this water loss. Some plants take in carbon dioxide at night when exposed surfaces are less subject to water loss. Adaptations such as small leaf surfaces, protective waxy leaf coverings or the ability to drop leaves during times of drought help desert plants minimize water loss. An extreme example, the ocotillo bush (Fouquieria splendens), sprouts leaves during the spring rains, then drops them in dry weather to avoid losing water through their exposed surfaces.

The irregular precipitation patterns characteristic of the desert today are dramatically different from those of the cooler, wetter Ice Age days when more mesic habitats were common. The California Desert's water systems are remnants of ancient hydrological networks, left from times when extensive systems of rivers and lakes occupied the area (Stebbins et al. 1978). In the subsequent warming and drying climate, mesic habitats retreated northward and upward in elevation; they now are restricted to areas of high elevation where conditions remain generally wet and cool. Relictual island-like forest habitats on isolated mountain summits are scattered across the California Desert.

Despite the desert's harsh environmental demands, it boasts a variety of vegetation types, including scrub and shrubland, highly productive woodlands, succulents and a variety of perennial and annual herbs. Much of the flora of the California Desert remains poorly known; indeed, the number of plant species in the desert ecosystem is only an estimate. The great age of the desert's creosote bush clones, some estimated to be as much as 10,000 to 12,000 years old, was discovered as recently as the middle 1970s. These creosote bushes may be the oldest living organisms on Earth.

Affected by overgrazing, wind and water erosion, and soil compaction as well as by increasing human pressures such as ORV use, collection, and encroaching development, an inordinate number of the California Desert's plants are threatened with extinction. More than 200 of the desert's 2,000-plus plant species are thought to be restricted to the California Desert (Di Silvestro 1987). Ninety-one species of vascular plants are considered rare, threatened or endangered by federal and state governments or the California Native Plant Society; 54 are candidates for protection by the federal Endangered Species Act (BLM 1980b; refer to the Appendix for detailed species information).

Animals

The California Desert supports more than 635 species of vertebrates--including 94 mammal species, 64 reptile species and 419 bird species (migratory and year-round residents)--and thousands of invertebrates, many of which have never been identified or described, let alone studied (BLM 1980; BLM 1980b). Among the many desert fishes are six species found nowhere else on Earth (BLM 1980a). In addition, at least 30 birds, 17 mammals, 9 reptiles, 5 amphibians and 7 fishes of the California Desert are considered rare, threatened, endangered or sensitive (see Appendix). Like desert plants, desert animals face many environmental challenges; like plants, desert animals avoid or endure the extremes of this environment through behavioral and physiological adaptations.

Because the scarcity and unpredictability of water are problems exacerbated by high daytime temperatures, many desert animals evade the desert's heat by going underground during the day and concentrating their activity during the cooler nighttime. Others restrict their activity to just a short period each winter when conditions are mild. The giant red velvet mite (*Dinothrombium pandorae*) spends most of the year in a sand burrow, waiting for the right combination of temperature and humidity on the surface to prompt its annual aboveground appearance. When the mites do emerge, they mate, and feed on termites (whose annual emergence and dispersal coincide with those of the mites) during the brief period of time after the termites drop to the ground but before they burrow into the sand (Ricklefs 1979). Fairy shrimp can survive long dry periods as eggs on the desert surface; when rains form ephemeral ponds, the shrimp hatch, breed, and begin the cycle anew.

Desert animals acquire and conserve water in a number of other ways. The hard exoskeletons of invertebrates help prevent water loss; many insects burrow into sand and soil for additional protection from blistering heat. The nocturnal kangaroo rat (*Dipodomys merriami*) is able to exist on the tiny amount of water in its food and has no need for free water. Among this species' remarkable physiological adaptations are those that allow its kidneys to produce nearly crystalline urine, thus minimizing water expenditures. The desert tortoise can store enough water for an entire season in sacs under its shell, allowing it to travel far from the desert's few water sources.

In addition to severe climatic conditions, the environmental challenges of the desert include diverse, unique habitat substrates. For example, loose windblown sand deposits, maintained by continual influx of wind-carried sand, form an unstable environment to which desert species have become specifically adapted. Fringe-toed lizards (*Uma* spp.) with projecting scales on the toes, overlapping eyelids, wedge-shaped noses and ear-covering flaps can dash across the loose surface and dive into the sand to escape heat and predators. These lizards--including the Coachella Valley fringe-toed lizard (*U. inornata*), the Mojave fringe-toed lizard (*U. scoparia*) and the Colorado Desert fringe-toed lizard (*U. notata*)--are behaviorally and morphologically adapted to blowsand; they are dependent on the constantly unstable conditions of the dunes, and therefore very vulnerable to habitat disturbance. Local invasions of the exotic Russian thistle (or tumbleweed, *Salsola kali*) mat the soil surface and stabilize blowsand critical to such species (USFWS 1985). Where structural barriers (even such simple barriers as roads) prevent wind-carried sand deposition, the blowsand habitat rapidly becomes too compacted for the fringe-toed lizards to burrow to safety. Near Palm Springs, development threatened the habitat of the Coachella Valley fringe-toed lizard;

protection of the nearby sources of blowsand was necessary to maintain the shifting environment.

The Coachella Valley fringe-toed lizard is but one of many animal and plant species specifically adapted to particular habitats in the California Desert. The desert's uniquely diverse topography and climate provide habitat for an unusual number of species, many of which are very narrowly distributed. In addition to these animals adapted to searing heat and aridity, a number of relictual species survive in remnant cooler and moister habitat patches within the desert matrix. The threatened Inyo brown towhee (Pipilo fuscus eremophilus), for example, is found only in the high southern portion of the Argus Mountains, where its entire population falls within an 11-mile range. This subspecies is an isolated relict population of the brown towhee, once widespread in the southwest during times of greater moisture (Di Silvestro 1987). The Amargosa vole (Microtus californicus scirpensis), a rare meadow mouse, is another such organism; it is restricted to only a few tule marsh habitat patches in the Mojave Desert associated with surface flow of the Amargosa River, a remnant of the wetter pluvial period of the Pleistocene. When warmer, drier climate caused much of the drainage system to shrink, habitat for organisms dependent on permanent water sources was reduced and fragmented, isolating individual populations. The Amargosa vole's last population now exists on less than one square mile of habitat (Murphy and Freas 1988). How these and other species have survived in minute remnant habitats under extreme climatic changes is a puzzle of immense interest to biologists. More importantly, we may well find that understanding how relict species persist in tiny patches of remnant habitat--as well as how organisms adapt to arid environments--can help us cope with changing global climate patterns.

SPECIAL NATURAL COMMUNITIES

The spectacular diversity of California Desert landforms, soil types and topography has allowed the development of myriad habitats. This mosaic in turn supports rich assemblages of plants and animal species. Great biological diversity in a highly circumscribed area, however, has a cost: Few species are truly widespread, and most are closely associated with very narrowly distributed ecological communities. The survival of desert species is intimately linked to the survival of intact ecological communities, a great many of which are unique to the California Desert and gravely threatened by human activities. Among the patchwork of natural desert communities are five types of particular interest: desert dunes, Joshua tree woodland, riparian zones, desert washes and mountaintop refugia.

Desert Dunes

While sandy substrates are common in the California Desert, dune habitats and ecosystems are few and support many plants and animals specialized for survival in this shifting environment. For example, the Panamint Dunes Wilderness Study Area just west of Death Valley National Monument provides the only known habitat for two very rare beetles. The Algodones Dunes, California's largest dune system, host one of the world's richest dune biotas and a variety of endemic organisms, including nine beetle species unique to the site (Stebbins et al. 1978). Along the eastern edge of the dunes, microphyll woodland dune thickets provide habitat important to many species of breeding or wintering birds. Four plant species found in the dunes' sandy habitats--a buckwheat (*Eriogonum deserticela*), sand food (*Ammobroma sonorae*), Wiggin's croton (*Croton wigginsii*) and desert sunflower (*Helianthus niveus tephrodes*)--are candidates for federal protection or have been conferred endangered status by the State of California (Elias 1986; Smith 1984; BLM 1980b).

Smaller but equally unique dune habitats are found in other parts of the California Desert. The Eureka Valley Dunes in the southern part of the Eureka Valley support one of three California Desert populations of the rare pallid kangaroo mouse (*Microdipodops pallidus.*) (National Audubon Society et al. 1979). In addition, the federally endangered Eureka dune grass (*Swallenia alexandrae*) and Eureka dunes evening-primrose (*Oenothera avita*) are endemic to several square miles of the Eureka Valley sand dunes at elevations between just 2,900 and 4,000 feet (National Audubon Society et al. 1979). The Kelso Dunes, some of the highest in the United States, comprise large areas of aeolian habitat and its highly specialized sand-dwelling fauna, including the Mojave fringe-toed lizard (National Audubon Society et al. 1979). Dune thickets in the Chuckwalla Valley provide food and cover for a number of bird species, including the prairie falcon, and the range of *Polyphylla anteronivea*, a scarab beetle, is contained entirely within the nine square miles of the Saline Dunes Wilderness Study Area (BLM 1980c). Characteristic features of the desert, sand dunes host plant and animal species that exemplify the adaptations required by life in the desert.

Joshua Tree Woodland

The shaggy, contorted figures of the Joshua trees are symbolic of the Mojave Desert. These plants--members of the lily family--grow as the conspicuous overstory in forests where sagebrush, creosote bush and other shrubs and perennial herbs form the understory. The distribution of this woodland defines the boundaries of the Mojave Desert in California; in general, Joshua trees grow at higher (moister) elevations above more arid creosote bush scrubland.

Structurally and compositionally complex, Joshua tree woodlands provide habitat that is the basis for the desert's most diverse animal communities. The dense Joshua tree woodland on Cima Dome, for example, provides high quality breeding habitat for the mountain bluebird (*Sialia currucoides*), American kestrel (*Falco sparverius*), Cooper's hawk (*Accipiter cooperii*) and Le Conte's thrasher (*Toxostoma lecontei*). Reptiles and mammals are also abundant in Joshua tree woodlands; the long list of associates includes desert spiny lizard (*Sceloporus magister*), collared lizard (*Crotaphytus collaris*), long-nosed leopard lizard (*Crotaphytus w. wislizenii*), coyote (*Canis latrans*), bobcat (*Felis rufus*), Panamint kangaroo rat (*Dipodomys panamintinus*) and the threatened Mojave ground squirrel (*Spermophilus mohavensis*).

Among the many species relationships found in Joshua tree woodlands is a particularly close symbiosis between the yucca moths (*Pronuba* spp.) and the Joshua tree and other *Yucca* species (Larson 1977). When the trees blossom, female moths fly from flower to flower, gathering pollen, and eventually laying eggs in flower ovaries. Following oviposition, they climb to the tops of the flower pistils and rub them, depositing some of their pollen loads. The moth larvae develop inside the yucca fruit, eating seeds, and eventually bore their way out, drop to the ground and enter it. There they remain until the following year when they emerge as adults and continue the cycle. Pollination provides the moths with no obvious direct benefit, yet it is necessary for the continued production of fruit--food for their young. The yuccas, in "return" for providing moth caterpillars with food, receive crucial fertilization and are apparently almost completely reliant on *Pronuba* moths for this function (Larson 1977).

Riparian Zones

Riparian habitats--those dependent on permanent water sources (oases, seeps, springs, streams, washes, playas, aquifers)--are rare in the desert. Desert riparian habitats are of special ecological value because their water, lush vegetation, shade and humidity are all scarce commodities in the desert. Riparian habitats thus support particularly high numbers of species. Such areas are important for the support of not only resident wildlife and vegetation but also large numbers of wide-ranging animals (generally mammals and birds) that depend on the resources of riparian habitats (Warner and Hendrix 1985).

The concentrated resources of food, water and cover in riparian zones support a number of rare species. At least 9 federally protected animals and 13 proposed BLM sensitive vertebrates in the California Desert rely on riparian habitats during part or all of their life cycles (BLM 1981). The highly restricted Inyo brown towhee breeds only in riparian zones of the Argus Mountains (California Fish and Game 1989; National Audubon Society et al. 1979). Federally protected Yuma clapper rails (Rallus longirostrus yumanensis) and bald eagles (Haliaeetus leucocephalus), along with many other birds associated with aquatic habitats are found near the marsh at Harper Dry Lake (BLM 1982), and the only natural population of the Mojave tui chub (Gila bicolor mohavensis) is found in springs and ponds at Fort Soda (State of California Resources Agency et al. 1980). This list of rare species restricted to riparian zones in the desert demonstrates the importance of surface water in desert ecosystems.

Humans are also attracted to water; recreation, mining, livestock grazing and other uses of desert riparian areas expose these sensitive zones to overuse and abuse. For example, in Afton Canyon, the Mojave River supports one of the desert's largest riparian and marsh habitats, used by bighorn sheep and a large number of breeding and wintering bird species. The integrity of this rare desert riparian zone is threatened by uncontrolled ORV use and overgrazing by livestock. Likewise, the Amargosa River is an important riparian system that provides habitat for rare fish and birds as well as a number of endangered mammals. While this ecosystem is considered unique by the U.S. Fish and Wildlife Service, ORV use was destroying important riparian vegetation, and causing erosion and increased river and stream siltation (National Audubon Society et al. 1979). The BLM has taken steps to prevent ORV damage to the area, but some problems persist (Norbert Reidy, pers. comm.). Protection of the riparian areas is clearly important for the future of the species that inhabit them as well as for the integrity of the desert ecosystem as a whole.

Desert Washes

Like riparian habitats, desert wash areas have relatively high soil moisture levels and tend to support dense and productive vegetation. Lush woodlands of ironwood (Olneya tesota), palo verde (Cercidium floridum) and catclaw (Acacia greggii) grow in desert washes and canyons. The cover provided by large shrubs and trees, the structural diversity and the richness of desert washes support a high diversity and density of wildlife and provide important bird habitat. The food, cover and nesting sites available in wash habitats support as many as eight times the number of species (50 times the number of birds) found in surrounding, more open desert communities (BLM 1981).

The Milpitas Wash, one of the desert's largest and most extensive washes, hosts populations of both the desert tortoise and Munz's cholla (Opuntia munzii), a cactus found nowhere else in the world (National Audubon Society et al. 1979). The Jawbone Canyon drainage and desert wash system is topographically varied and contains a diverse faunal assemblage; the desert tortoise, a variety of snakes, unusually high numbers of raptors, populations of rare plants--including Charlotte's phacelia (Phacelia nashiana) and sandpaper plant (Petalonyx nitidus)--and a number of carnivores--kit fox (Vulpes macrotis), bobcat (Felis rufus), and others--are all packed into this small wash habitat (National Audubon Society et al. 1979). The Sonoran Desert's McCoy Wash provides desert ironwood-palo verde habitat critical to birds migrating across the desert. The structurally diverse, productive desert wash habitats of the California Desert also provide nesting sites for birds that breed in the desert, as well as food and cover for a variety of reptiles and mammals.

Mountaintop Refugia

Like other parts of the world, the California Desert was once cooler and moister than it is today. The drying and warming climatic conditions that followed the most recent ice age caused habitats such as piñon pine (Pinus monophylla) and juniper (Juniperus spp.) forests to retreat northward and to higher elevations where temperature and moisture regimes are more suitable (BLM 1980d). White fir (Abies concolor) forests, once widespread, are now isolated on the coolest and highest desert mountaintops.

Cool, high elevation forests form a series of "islands" on mountaintops. These areas support a unique combination of plant and animal species. Many such remnant habitats support species that are found nowhere else in the desert. Atop Clark Mountain are the largest of the desert's three relict white fir stands as well as old-growth pinon forests, rich creosote scrub and Joshua tree woodlands, all of which provide habitat for rich faunal assemblages. There lives a herd of threatened bighorn sheep, the desert's only breeding population of Bendire's thrasher (Toxostoma bendirei), and 12 rare and endangered plants (National Audubon Society et al. 1979).

Relict white fir stands in the Kingston Range WSA support 15 rare and endangered plants as well as many bird species restricted to such forests. The only known desert locality for the ring-necked snake (Diadophis punctatus), widespread in moist habitats throughout much of North America, is in the Mojave's Providence Mountains (Robert J. Stebbins, pers. comm.). In the rich montane vegetation of the New York Mountains are habitats with an unusually high species diversity; in these patches are nearly 300 plant species and 50 vertebrate species generally considered to be significant or sensitive (National Audubon Society et al. 1979). The patchiness of these isolated mountaintop habitats makes them--and their relict species assemblages--particularly vulnerable to habitat destruction, and resultant extirpation.

Research Value

Together, the unique environments and organisms of the California Desert make it a living laboratory and library. Desert habitats hold the keys to the survival of a large number of endemic, rare, threatened or endangered plant and animal species. Furthermore, study of the desert's ecological relationships is an important part of understanding global patterns of rarity and species survival. The diversity of the desert offers unequalled opportunities for research. Indeed, the California Desert has long been the subject of a breadth of studies in fields including botany, zoology, geology, ecology and geography (Stebbins et al. 1978).

The desert contains records of residents long gone--species that thrived well before the current dry, hot conditions. Seventy years of paleontological research in the desert have dated human occupancy back 12,000 years (Stebbins et al. 1978). In the Devil's Punchbowl, east of Palmdale, fossils of prehistoric animals have been found embedded in broken layers of compressed sediment, providing clues to life millions of years ago. Some of California's richest vertebrate fossil records are found in the internationally known Barstow and Ricardo formations comprising more than 650 sites.

Beyond scientific and historical interest, desert research has immense application to agriculture and industry. Many desert plants are important sources of food, medicine, oils, fibers and other economically important substances. For example, the seeds of jojoba (Simmondsia chinensis) contain a liquid wax that can be used in high speed machinery as a substitute for sperm whale oil (Stebbins et al. 1978, 1977). The desert holds many other species of promising value. Perhaps most important, studies of the ways in which desert species respond to aridity and salinity may significantly contribute to the development of agricultural techniques; understanding plants' adaptations to arid environments will be a particularly important part of agricultural research as our global environment changes. There is no way to know today which species' genes might allow geneticists to create drought-resistant crops, which species could facilitate development of important fuel alternatives, or which organisms hold the secrets to a potential cancer cure; protection of the entire suite of desert plant and animal species is the only sure way to preserve these resources for the future.

THE IMPACT OF HUMAN ACTIVITIES

Years ago, California condors (*Gymnogyps californianus*) soared high above the California Desert; below, jaguars (*Felis onca*) stalked their prey and grizzlies (*Ursus arctos horribilis*) roamed (BLM 1980b). Although these species have since been extirpated from the California Desert, an amazing array of biodiversity remains. However, increasing pressures on the desert and its resources are taking their toll on native desert wildlife. While the attention of many Californians has been captured by the plight of the disappearing bighorn sheep and the few remaining scattered populations of desert tortoises, the California Desert also contains many less charismatic but equally rare and endangered plants and invertebrates.

Humans, of course, have historically had myriad impacts on the desert, nearly all of which disrupt or fragment natural habitats. Some have taken advantage of the desert's unique habitats, resources and species; others have abused the desert without respect for its biological, historical and economic importance. Smog from the Los Angeles basin drifts in, industry and agriculture creeping behind. Nearby counties export to the desert air pollution, land use pressure and solid and toxic waste. Military reservations and testing grounds occupy large--and growing--sections of the desert. Soldiers on a massive training drill led by General Patton left deep tracks in the desert still apparent more than 45 years later. Man-made habitat fragmentation, widespread ORV use, concentrations of domestic and feral grazing animals, energy development and mineral extraction are among the most devastating pressures on the California Desert ecosystem. These and other desert wounds heal very slowly.

Fragmentation

Study of the natural processes that have isolated boreal forests and other mesic habitats on mountaintop refugia in the desert can be instructive. As regional warming forced such habitats to ascend in elevation, the geographic areas available for those habitats diminished. The populations supported by those shrinking habitats concomitantly became smaller, and in turn the smallest and most vulnerable populations went extinct.

Human-induced habitat fragmentation proceeds similarly: As desert habitats become more fragmented by roads, agriculture, mining, utility corridors and other development, they are less able to support large and wide-ranging species, and as these species disappear, so do countless others that depend on them. All of these organisms are decreasing in numbers, and like the California condor, jaguar and grizzly bear, they are unable to adapt quickly to man-made imbalances in and intrusions into the desert system.

However, while the effects of human-induced habitat fragmentation are similar to natural processes, they proceed at rates usually far exceeding those associated with natural processes. Animals that require extensive areas of habitat are particularly sensitive to fragmentation and are disappearing most rapidly as the California Desert is increasingly disturbed. Each pair of prairie falcons (Falco mexicanus) utilizes as much as 38,000 acres of open habitat in a year with abundant resources--and even more in a year when resources are scarce--an amount of habitat that is becoming harder to find in the California Desert (BLM 1980c). The birds avoid breeding or foraging in habitat disturbed by ORVs and other weekend recreation; as such activities spread throughout the desert, the falcons' habitat becomes more and more fragmented, and their populations dwindle (BLM 1980c). As human populations grow and desert exploitation increases, more and more roads further fragment the ecosystem, and the ecological tapestry of the California Desert continues to unravel.

Off-road Vehicles

As we disturb and destroy natural features of the desert, the demand for outdoor recreation facilities grows, due particularly to population growth in southern California and the Las Vegas, Phoenix and Tucson areas. Seeking recreation, solace, and escape from urban environments, people are turning to desert resources and lands for camping, hiking, hunting, rockhounding, biking and off-road vehicle (ORV) use. Since the 1960s, off-road recreational vehicles have become increasingly popular, and increasingly difficult to regulate. While ORV use provides an important recreational outlet for thousands of Californians, it significantly impacts desert habitats. Mechanical disturbance increases an area's susceptibility to water and wind erosion and leads to siltation and water pollution. Dust and exhaust emissions cloud the air, and vehicle tracks alter drainage and water supply patterns, change sand movement and compact soil.

Vegetation is the landscape feature most easily damaged; a single pass of an ORV can destroy microfloral crusts important to soil stability. Vehicles disrupt seed banks and can crush even the largest plants; in the compacted soil left behind, plants cannot establish roots. ORV use along the edges of the 5,000 year-old Pisgah Crater lava flow 30 miles east of Barstow has broken the thin but protective gravel crust, compacted soil and allowed wind and water to wash away ground cover and even the earth below (Stebbins et al. 1978). Over a thousand dirt bikers annually race 120 miles from Barstow, through the East Mojave National Scenic Area, to Las Vegas. Across their wide path, racers have crushed tortoises, destroyed vegetation and eroded soil, leaving permanent scars. In 1974, 10,000 people in the starting area and campground destroyed nearly all of the vegetation; rodent populations were reduced to just 10 percent of what they were before the race (Ginsberg et al. 1976).

When off-road vehicles compact desert soils, they destroy habitats for much of the desert fauna. Some desert inhabitants are dependent on undisturbed, loose soil; by destroying food and shelter, ORVs threaten desert wildlife species. Without vegetational structure to provide cover and food, wildlife disappears, leaving only denuded ground pocked with tracks and trails. The vehicles also frighten animals, collapse burrows and directly kill animals. Prairie falcons and golden eagles are especially sensitive to ORV noise and other human disturbance; irresponsible drivers run over animals as large as desert tortoises, crushing and killing them. Desert riparian areas and desert washes are particularly popular with ORV users; increasing recreational use is destroying the rich vegetation of these rare desert habitats.

Grazing

For more than 100 years, parts of the desert have been used as rangeland. In 1980, ranchers were leasing more than 4.5 million acres of the California Desert from the BLM for sheep and cattle grazing (BLM 1980b). In addition to domestic livestock, the desert supports large populations of feral animals introduced by explorers, prospectors, and miners. More than 10,000 burros and 1,000 horses were estimated to live in the California Desert in 1980 (BLM 1980a). These concentrations of horses and burros, as well as sheep and cattle, terrace hillsides and damage springs and riparian vegetation with their sharp hooves; for example, livestock and feral grazers have greatly damaged the habitat of the rare Charlotte's phacelia (Phacelia nashiana), which is now threatened with extinction (National Audubon Society et al. 1979). Springs in the Inyo Mountains are habitat for the distributionally highly fragmented (and State listed) Inyo Mountains salamander (Batrachoseps campi), discovered only in 1973.

Horses, burros, sheep and cattle trample small native animals and their burrows and destroy vegetative shelter and food sources. In addition, livestock carry disease to which native desert animals are not yet immune; cattle are apparently transmitting disease to bighorn sheep (Philippe Cohen, pers. comm.). Native desert species--birds, small mammals, ungulates, amphibians and reptiles--inevitably lose the race for forage to managed livestock and feral herds. Cattle in the Bureau of Land Management's Kingston Range Wilderness Study Area compete with bighorn sheep for water, food and space--even in extremely steep and rugged areas--and clearly are forcing the bighorn population to find other habitat (BLM 1981).

Grazing by livestock and feral mammals insidiously causes shifts in the composition of plant communities. In the Mojave River drainage, grazing at the west end of Afton Canyon appears to be responsible for allowing the aggressive introduced salt cedar (Tamarix sp.) to invade and displace native vegetation (Di Silvestro 1987). Grazing in Eureka Valley has promoted the spread of competitive, exotic weeds (such as Russian thistle) that now threaten the dune community and its rare species (Bruce Pavlik, pers. comm.) Such changes particularly affect animal species with limited distribution and specialized habitat requirements. For example, once abundant and widespread, desert tortoise populations are now patchy and scarce. Tortoises, dependent on annual vegetation, are left with insufficient forage and water in areas where herds of sheep or cattle graze (and consume as much as 10,000 pounds of plant matter per individual each year; see Chandler 1988). Like the pronghorn and desert bighorn, the herbivorous tortoise is particularly large for its class. The extirpation of the pronghorn from the Mojave and Sonoran deserts and declining populations of the tortoise and bighorn appear to be classic symptoms of a dramatic vegetation decline that first affects larger species with the greatest resource demands.

Mining and Energy Resources

Far less subtle in their impacts than is grazing, many mineral resource extraction techniques are ecologically disastrous in the slow-healing desert. Simply by increasing the number of people and vehicles in a given area, such operations affect the surrounding ecosystem; the mining activities themselves damage large areas of vegetation. Riparian habitats are particularly vulnerable to damage from mining operations: New mining techniques that use significant quantities of groundwater can dry up springs and streams. Cyanide, heavy metals and other pollutants can enter the water sources upon which many species depend, and erosion and siltation can destroy both aquatic and vegetative resources. The nineteenth century silver boom that created Panamint City brought to Panamint Valley the heavy equipment necessary to create access to and work the mining sites. Resultant plant destruction and erosion have all but obliterated surface features and vegetation in parts of the Panamint Mountains.

Some mineral extraction techniques affect animals directly; mining operations crush animals as large as tortoises and create pits in which animals may become trapped (Di Silvestro 1987). Water in the desert attracts animals of many kinds. The exposed cyanide-laced waters of the rapidly expanding open-heap leach gold mines of the "new western gold rush" are killing wildlife from insects to migratory birds and bats. These waters are attractive death traps that threaten desert animal life.

The California Desert is also popular for development of renewable resources. Its expanses of undeveloped land are used to explore solar, nuclear, geothermal and wind energy technologies. Additionally, rights-of-way for electricity, gas and oil occupy corridors in many parts of the desert. Clusters of solar panels or windmills, towering transmission cables, and kilometers of above-ground pipes split the desert into what are essentially habitat islands, isolating animals that cannot--or will not--cross these disturbances. Development of utility corridors, like mining activities and other consumptive uses of desert resources, fragments natural habitats, and it is that fragmentation, concomitant reduction in size and increased isolation of natural habitats that reduce the desert's ability to provide the resources required by large and wide-ranging species.

RECOMMENDATIONS FOR PROTECTING THE DESERT ECOSYSTEM

If a unifying theme exists in California Desert conservation, it is that the impacts of human disturbance and habitat fragmentation are best mitigated where large and continuous areas of wildlands are protected. Because the California Desert ecosystem is a network of diverse habitats and communities, its preservation requires protection of extensive, diverse habitat patches. The challenge of conserving desert species and ecosystems demands extensive habitat protection for at least four additional reasons.

First, because so many species are largely restricted to a single habitat type and habitat distribution is often patchy, the only responsible conservation plan is to protect several such patches with continuous undisturbed areas in between to allow for migration under severe conditions. Second, a substantial number of California Desert species forage in one habitat and seek shelter or nesting sites in another. Protection of such species demands extensive tracts of land of both habitat types. Third, topographic diversity and other natural variation in habitats are among the most important factors in population persistence. The availability of cool, moist habitats during long dry spells and of warm, dry refuges during occasional times of deluge buffers populations against dramatic population fluctuations that could otherwise put them at risk. Finally, most California Desert endangered species are endangered because of habitat loss, and the remaining small populations are particularly sensitive to further habitat fragmentation and loss.

The desert environment is fragile--one that in 1976 Congress identified as "easily scarred, and slowly healed" (BLM 1988). While in some contexts the quality of our lives is dependent on resource availability, immediate resource goals and desires often do not consider our future welfare. The biological resources and values of the California Desert are uniquely significant and sufficiently vulnerable to justify their protection.

The biological relationships between the desert ecosystem's living and non-living components are complex. Knowledge of ecological processes is crucial for the long-term conservation of the ecosystem. While a variety of federal, state and private landowners are responsible for managing the desert, the BLM administers nearly half--12.1 million acres (Chandler 1988). A broad scope of existing legislation affects desert resource management: Mining Law of 1872, Mineral Leasing Act of 1920, Taylor Grazing Act of 1934, Wilderness of Act of 1964, Historic Preservation Act of 1966, National Environmental Policy Act of 1969, Mining and Minerals Policy Act of 1970, Wild Free-Roaming Horse and Burro Act of 1971, Endangered Species Act of 1973, Sikes Act of 1974, Federal Land Policy and Management Act of 1976 and the Rangeland Improvement Act of 1978. However, none of these statutes--nor the BLM's California Desert Conservation Area Plan of 1980--protects the California Desert as a complete, living, balanced ecosystem.

The best means to protect the full range of biological diversity in the California Desert--remnant populations of species isolated across mountaintops, riparian communities and other relict habitats; plants and animals specifically adapted for survival in the hot, dry environment; and the wide-ranging species dependent on large chunks of intact habitat--is preservation of continuous undisturbed tracts of the diverse desert habitat matrix. Wildland preservation can prevent direct human disturbance, habitat destruction and species loss by restricting on- and off-road vehicle access, grazing, energy development and mineral exploration and extraction and can preserve habitat patches large enough to support population of species with extensive area requirements. Without adequate protection of the California Desert wildlands, the natural habitats will become further disturbed, fragmented and isolated; the desert's unique assemblages of organisms will irreversibly dwindle; and the list of endangered and vanishing species will continue to grow.

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REFERENCES

Bureau of Land Management. 1988. East Mojave National Scenic Area Environmental Assessment. BLM, Sacramento, California.

_________. 1982. California Desert Conservation Area: Final Environmental Impact Statement and Proposed Plan. Appendix: Volume G.

_________. 1981. California Desert Conservation Area: Final Environmental Impact Statement and Proposed Plan. Appendix IX: Wildlife.

_________. 1980a. California Desert Conservation Area: Final Environmental Impact Statement and Proposed Plan.

_________. 1980b. The California Desert Conservation Area Plan Alternatives and Environmental Impact Statement: Draft. BLM, Sacramento, California.

_________. 1980c. The California Desert Conservation Area Plan Alternatives and Environmental Impact Statement: Draft. Appendix. BLM, Sacramento, California.

_________. 1980d. California Desert Conservation Area Plan. BLM, Sacramento, California.

Center for Plant Conservation. 1989. Priority list. Center for Plant Conservation, Jamaica Plain, Massachusetts.

Chandler, William J. 1988. Audubon Wildlife Report 1988/1989. Academic Press, New York.

DeDecker, Mary. 1984. Flora of the Northern Mojave Desert, California. Special publication No. 7, California Native Plant Society, Berkeley, California.

Di Silvestro, Roger L. 1987. Audubon Wildlife Report 1987. Academic Press, San Diego, California.

Elias, Thomas S. 1986. Conservation and Management of Rare and Endangered Plants. Proceedings of a California Conference on the Conservation and Management of Rare and Endangered Plants. Publication No. 8, California Native Plant Society, Sacramento, California.

Ginsberg, Jonathan, Robert Mintz and William S. Walter. 1976. The Fragile Balance: Environmental Problems of the California Desert. Stanford Environmental Law Society, Stanford University, Stanford, California.

Glazner, Allen F. and Bilodeau, Bruce J. 1980. Guidebook to the Mojave Desert Region. ESSSO Guidebook 11. Department of Earth and Space Sciences, University of California, Los Angeles.

Larson, Peggy. 1977. A Sierra Club Naturalist's Guide to the Deserts of the Southwest.

Sierra Club Books, San Francisco.

Murphy, D.D., and K.E. Freas. 1988. Recommendations for the Conservation of the Amargosa River Pupfish, *Cyprinodon nevadensis amargosae* and the Amargosa Vole, *Microtus californicus scirpensis*. Center for Conservation Biology, Stanford University, Stanford, California, report submitted to The Nature Conservancy, San Francisco.

National Audubon Society, Southern California Audubon Chapters, and Southern California Academy of Sciences. 1979. Wildlife in the California Desert: Is There a Future? Conference Proceedings. Riverside, California.

Ricklefs, Robert E. 1979. Ecology, second edition. Chiron Press, New York.

Schifferle, Patricia. 1987. Statement of Patricia Schifferle, The Wilderness Society's Regional Director for California and Nevada, before the Public Lands, National Parks, and Forest Subcommittee of the Senate Energy and Natural Resources Committee on the California Desert Protection Act, S. 7. July 23.

Smith, James Payne Jr. 1984. Inventory of Rare and Endangered Vascular Plants of California, third edition. California Native Plant Society, Berkeley, California.

State of California Department of Fish and Game. April 1, 1988. List of State and Federal Endangered and Threatened Animals of California.

State of California Department of Fish and Game. March, 1989. California Natural Diversity Database.

State of California Resources Agency, Fish and Game Commission, and Department of Fish and Game. 1980. At the Crossroads: A Report on the Status of California's Endangered and Rare Fish and Wildlife. California Department of Fish and Game.

State of California Resources Agency, Department of Fish and Game. 1988. 1988 Annual Report on the Status of California's State Listed Threatened and Endangered Plants and Animals.

Stebbins, R.C., Theodore J. Papenfuss, Florence D. Amamoto. 1978. Teaching and Research in the California Desert. Institute of Governmental Studies Research Report 78-1, University of California, Berkeley.

_________. 1977. Teaching and Research in the California Desert. A Report to the Bureau of Land Management, Sacramento, California.

U.S. Fish and Wildlife Service. 1989. Federal Register, January 9. U.S. Fish and Wildlife Service, Washington, D.C.

_________. 1985. Coachella Valley Fringe-toed Lizard Habitat Conservation Plan. Coachella Valley Fringe-toed Lizard Habitat Conservation Plan steering committee and the U.S. Fish and Wildlife Service, Portland, Oregon.

Warner, R.E. and Hendrix, K. 1985. Riparian Resources of the Central Valley and California Desert. State of California Department of Fish and Game, Sacramento, California.

APPENDIX

Appendix: A Partial List of the California Desert's Rare, Endangered, Threatened, and Sensitive Species

Species (References)	Status
Animals	
Accipiter cooperii, Cooper's hawk (2)	SS
Anarbylus switaki, Magic gecko (5,10)	BP,SL
Anomala carlsoni, Carlson's dune beetle (3)	SS
Anomala hardyorum, Hardy's dune beetle (3)	SS
Aquila chrysaetos, Golden eagle (5,8)	BP
Asio otus, Long-eared owl (3)	SS
Batrachoseps aridus, Desert slender salamander (3,5,7)	FE,SE
Batrachoseps campi, Inyo Mountain salamander (2,5,8,10,13)	BP,SL,FC
Batrachoseps stebbinsi, Tehachapi slender salamander (5,10,11,12)	ST,FC
Branta canadensis leucoparsia, Aleutian Canada goose (5,10,11)	FE,SE
Bufo exsul, Black toad (2,5,7,10,11)	FC,ST
Bussariscus astutus, Ringtail (2)	SC
Buteo swainsoni, Swainson's hawk (1,13)	ST
Charadrius alexandrinus, Snowy plover (3)	FC
Clemmys marmorata, Western pond turtle (5,8)	BP
Coccyzus americanus occidentalis, California yellow-billed cuckoo (5,7,11)	SE
Colaptes auratus mearsi, Gilded northern flicker (2,3,11)	SE
Coleonyx switaki, Switaks' barefoot gecko (3)	FC,ST
Cyprinodon macularius, Desert pupfish (3,5,7,10,11)	BP,FE,SE
Cyprinodon milleri, Cottonball Marsh pupfish (7,12)	ST
Cyprinodon nevadensis amargosae, Amargosa River pupfish (10)	BS
Cyprinodon radiosus, Owens pupfish (3,7)	FE,SE
Dendroica petechia br[illegible]ri, Yellow warbler (3)	SS
Dipodomys panamint[illegible], Panamint kangaroo rat (5,8)	BP
Empidonax traillii, Willow flycatcher (3)	SS
Eutamias panamintus acrus, Kingston Mountain chipmunk (5,8)	BP
Falco mexicanus, Prairie falcon (1,3)	SS
Falco peregrinus, Peregrine falcon (5,10)	FE,SE

Gerrhonotus panamintus, Panamint alligator lizard (2)	SS,SP
Gila bicolor mohavensis, Mojave tui chub (3,5,7,10)	FE,SE
Gopherus agassizii, Desert tortoise (5,10,12)	BS,ST,FE
Haliaeetus leucocephalus, Bald eagle (5,10)	FE,SE
Heloderma suspectum, Gila monster (1)	FC
Icteria virens, Yellow-breasted chat (3)	SS
Junco hyemalis caniceps, California gray-headed junco (3)	SS
Laterallus jamaicensis coturniculus, California black rail (5,11,12)	ST,FC
Macrotus californicus, California leaf-nosed bat (3)	SS
Micrathene whitneyi, Elf owl (5,7,10,11)	BP,SE
Microdipodops pallidus pallidus, Pale kangaroo mouse (2,3)	SS
Microtus californicus scirpensis, Amargosa vole (3,5,7,11)	BP,SE,FE
Microtus californicus vallicola, Owens Valley vole (3)	FC
Myotis velifer brevis, Southwestern cave bat (3,13)	FC
Myriarchus tyrannulus, Brown-crested flycatcher (2)	SS
Neotoma albigula venusta, Colorado Valley woodrat (3)	SS
Ovis canadensis californiana, California bighorn sheep (5,7,11,13)	BS,ST,FC
Ovis canadensis cremnobates, Peninsular bighorn sheep (5,7,13)	FC,ST
Ovis canadensis nelsoni, Nelson's bighorn sheep (3)	SP
Pandion haliaetus, Osprey (5,8)	BP
Pelecanus occidentalis californicus, California brown pelican (5,11)	FE,SE
Perognathus xanthonotus, Yellow-eared pocket mouse (5)	BP
Phrynosoma mcalli, Flat-tailed horned lizard (2,10,12)	BS,FC,SC
Phrynosoma platyrhinos, Coast horned lizard	[illegible]C
Pipilo fuscus eremophilus, Inyo Brown towhee (3,5,10,11)	BP,SE,FT
Piranga flava, Hepatic tanager (2)	SS
Piranga rubra, Summer tanager (5,8)	BP
Plecotus townsendii pallescens, Pale big eared bat (3)	SS
Pseudocotalpa andrewsi, Andrew's dune scarab beetle (2,8)	BP
Pyrocephalus rubinus, Vermillion flycatcher (2,5)	BP
Rallus longirostrus yumanensis, Yuma clapper rail (3,5,10,11)	FE,ST
Rana pipiens, San Sebastian leopard frog (10)	BS
Rhinichythys nevadensis, Nevada speckled dace (10)	BS

Mastigoproctus giganteus, Shoshone Cave whip-scorpion (8)	**BS**
Spermophilus mojavensis, Mojave ground squirrel (5,7,11,12)	**ST,FC**
Spermophilus teneticaudus chlorus, Coachella rd-tailed grd. squirrel (5,8)	**SR,BP**
Toxostoma bendirei, Bendire's thrasher (2,3)	**SS**
Toxostoma lecontei, LeConte's thrasher (2,3)	**SS**
Uma inornata, Coachella Valley fringe-toed lizard (3,5,7,12)	BP,FE,SE
Vermivora virginiae, Virginia's warbler (2)	SS
Vireo bellii pusillus, Least Bell's vireo (1,3,5,7,10)	FE,BP,SE
Vireo vicinior, Gray vireo (2)	SS
Vulpes macrotis mutica, San Joaquin kit fox (2,11)	ST,FE
Xyrauchen texanus, Razorback sucker (3)	FC,SE

Plants

Allium shevockii, Spanish needle onion (3)	SS
Ammobroma sonorae, Sand food (2,9)	FC,NR&E
Arctomecon merriamii, White bear poppy (3,9)	SS,NR
Astragalus cimae cimae, Cima rattleweed (2,9)	NR&E
Astragalus douglasii perstrictus, Round-podded milk-vetch (4,9)	BS,NR&E
Astragalus funereus, Black milk vetch (3,9)	FC,NR&E
Astragalus lentiginosus micans, Shining milk vetch (1,4,9)	FC,BS,NR&E
Astragalus lentiginosus sesquimetralis, Sodaville milk vetch (8,9,12)	SE,FC,NR&E
Astragalus leucolobus, Bear Valley woolly pod (3)	SS
Astragalus magdalenae peirsonii, Peirson's milk vetch (8,9,12)	SE,FC,NR&E
Astragalus mojavensis hemigryrus, Curved-pod milk vetch	SS
Bouteloua simplex, Mat grama (2,9)	NR
Bursera microphylla, Elephant tree (3,9)	SS,NR
Calochortus dunnii, Dunn's mariposa lily (9,12)	SR,FC,NR&E
Calochortus striatus, Alkali mariposa lily (3,9)	SS,NR&E
Castela emoryi, Crucifixion thorn (3,9)	SS,NR
Caulostraminea jaegeri, Jaeger's caulostraminea (4,9,3)	BS,NR&E,FC
Centaurium namophilum namophilum, Spring loving centaury (3,4,9)	FT,NR&E
Cordylanthus eremicus bernardinus, Bird's beak (8,9)	SE,NR&E
Cordylanthus tecopensis, Tecopa bird's beak (4)	BS,FC

Coryphantha vivipara alversonii, Alverson's pincushion cactus (3,4,9)	BS,NR&E
Coryphantha vivipara rosea, Viviparous foxtail cactus (1,3,9)	FC,NR&E
Croton wigginsii, Wiggin's croton (4,8,9)	SE,FC,NR
Cryptantha roosiorum, Bristlecone cryptantha (3,9,12)	SR,FC,NR&E
Cymopterus gilmanii, Gilman's cymopterus (3,9)	SS,NR
Cymopterus repleyi, Riley's cymopterus (3)	SS
Dedeckera eurekensis, July Gold (1,8,9)	SR,FC,NR&E
Ditaxis californica, California ditaxis (4,9)	BS,NR&E
Dudleya saxosa saxosa, Panamint liveforever (4,9)	BS,FC
Enceliopsis covillei, Panamint daisy (4,9)	BS,NR&E
Eriodictyon angustifolium, Narrow-leafed yerba santa (2,9)	NR
Eriogonum bifurcatum, Forked buckwheat (3,9)	FC,NR&E
Eriogonum breedlovei shevockii, Needles buckwheat (3,9)	FC,NR&E
Eriogonum deserticola, desert buckwheat	FC
Eriogonum eremicola, Wild Rose Canyon buckwheat (3,9)	FC,NR&E
Eriogonum ericifolium thornei, Thorne's buckwheat (4,8,12,9)	BS,SE,FC,NR&E
Eriogonum microthecum panamintense, Panamint Mtns. buckwheat (3,4,9)	FC,BS,NR&E
Eriophyllum mohavense, Barstow woolly-sunflower (4,9)	BS,NR&E
Eryngium aristulatum parishii, San Diego coyote thistle (3,9,12)	SE,FC,NR&E
Forsellesia pungens, Pungent forsellesia (4)	BS,SS
Fremontodendron mexicanum, Mexican fremontia (9,12)	SR,FC,NR&E
Galium hilendiae kingstonense, Kingston bedstraw (3,9)	FC,NR&E
Galium wrightii, Wright's bedstraw (3,9)	SS,NR
Grindelia fraxino-pratensis, Ash Meadows gumplant (3,4,6,9)	FT,NR&E
Helianthus niveus tephrodes, Algodones Dunes sunflower (4,9,12)	BS,SE,FC,NR&E
Hemizonia arida, Mojave tarweed (9,12)	SR,FC,NR&E
Ivesia jaegeri, Jaeger's Ivesia (3,9)	SS,NR&E
Koeberlinia spinosa, Crown of thorns (3,9)	SS,NR
Lianthus masculatus, Little San Bernardino Mtn. lianthus (3)	FC
Lupinus excubitus medius, Mountain Springs bush lupine (4,9)	BS,NR&E
Lupinus magnificus magnificus, Panamint Mountains lupine (3,9)	FC,NR&E
Mammillatia alversonii, Alverson foxtail cactus (1,2)	FC

Maurandya antirrhiniflora, Violet twining snapdragon (3)	SS
Mimulus mohavensis, Mojave monkeyflower (3)	SS
Mimulus pictus, Calico monkeyflower (3,9)	SS
Mimulus shevockii, Kelso Creek monkeyflower (3,9)	SS,NR&E,FC
Monardella robisonii, Robinson's monardella (1,4,9)	BS,FC,NR&E
Nitrophila mohavensis, Amargosa nitrewort (3,4,9)	FE,SE,NR&E
Oenothera avita eurekensis, Eureka Dunes evening primrose (2,3,4,8,9)	FE,SR,NR&E
Opuntia basilaris brachyclada, Short joint beavertail cactus (1,9)	FC,NR&E
Opuntia munzi, Munz's cholla (4,9)	FC,BS,NR&E
Opuntia wigginsii, Wiggin's cholla (3,9)	FC,NR&E
Oxytheca watsonii, Watson's oxytheca (3)	SS,NR
Palafoxia arida gigantea, Giant Spanish needle (3,9)	FC
Penstemon stephensii, Stephen's beardtongue (1,3,9)	FC,NR&E
Perityle inyoensis, Inyo laphamia (3,4,9)	BS,NR&E
Petalonyx thurberi gilmanii, Death Valley sandpaper plant (3,9)	FC,NR&E
Phacelia amabilis, Saline Valley phacelia (6.9,3)	FC,NR
Phacelia nashiana, Charlotte's phacelia (3)	SS
Phacelia novemillensis, Nine Mile Canyon phacelia (3,9)	FC,NR&E
Pholistoma auritum arizonicheun, Arizona pholistoma (3,9)	SS,NR
Pilostyles thurberi, Thurber's pilostyles (3,9)	SS,NR
Potentilla patellifera, Kingston Mountain cinquefoil (3,9)	FC,NR&E
Salvia greatae, Orocopia sage (4,9)	FC,BS,NR&E
Sphaeralcea rusbyi eremicola, Rusby's desert mallow (4,9)	BS,NR&E
Swallenia alexandrae, Eureka dunegrass (2,3,4,8,9)	FE,SR,NR&E
Trifolium dedeckerae, Dedecker's clover (3,9)	SS,NR&E
Pinus edulis, Two-needle pinon pine (2,9)	NR
Xylorhiza orchuttii, Orcutt's woody aster (3,9)	SS,NR&E

Status abbreviations

BP = proposed BLM sensitive
BS = BLM sensitive

SC = state candidate
SE = state endangered
SP = state protected

NR = California Native
Plants Society (CNPS) rare
NR&E = CNPS rare and endangered
NT = CNPS threatened

SR = state rare
SS = state species of special
concern
SL = state listed (undefined)

FC = federal candidate
FE = federally endangered
FT = federally threatened

Sources

1 Schifferle, Patricia. 1987. Statement of Patricia Schifferle, The Wilderness Society Regional Director for California and Nevada Before the Public Lands, National Parks, and Forest Subcommittee of the Senate Energy and Natural Resources Committee on the California Desert Protection Act, S. 7. July 23.

2 National Audubon Society and Southern California Academy of Sciences. Wildlife in the California Desert: Is There a Future? 1979. Conference Proceedings. Riverside, California.

3 State of California Department of Fish and Game. March, 1989. California Natural Diversity Database.

4 Elias, Thomas S. 1986. Conservation and Management of Rare and Endangered Plants. Proceedings of a California Conference on the Conservation and Management of Rare and Endangered Plants. Publication No. 8, California Native Plant Society, Sacramento, California.

5 Bureau of Land Management. 1981. California Desert Conservation Area: Final Environmental Impact Statement and Proposed Plan. Appendix IX: Wildlife.

6 Center for Plant Conservation. March 1989. Priority List. Center for Plant Conservation, Jamaica Plain, Massachusetts.

7 State of California Resources Agency, Fish and Game Comission, and Department of Fish and Game. 1980. At the Crossroads: A Report on the Status of California's Endangered and Rare Fish and Wildlife. California Department of Fish and Game.

8 Bureau of Land Management. 1980b. The California Desert Conservation Area Plan Alternatives and Environmental Impact Statement: Draft. BLM, Sacramento, California.

9 Smith, James Payne Jr. 1984. Inventory of Rare and Endangered Vascular Plants of California, third edition. California Native Plant Society, Berkeley, California.

10 Bureau of Land Management. 1982. California Desert Conservation Area: Final Environmental Impact Statement and Proposed Plan. Appendix: Volume G.

11 State of California Department of Fish and Game. April 1, 1988. List of State and Federal Endangered and Threatened Animals of California.

12 State of California Resources Agency, Department of Fish and Game. March 1988. 1988 Annual Report on the Status of California's State Listed Threatened and Endangered Plants and Animals.

13 U.S. Fish and Wildlife Service. 1989. Federal Register, January 9. USFWS, Washington, D.C.

Senator BUMPERS. Thank you, Dr. Goerold.

First of all, I want to say to all of you that I never will forget when I came to Washington to testify the first time. I was governor of my state and thought I was pretty hot stuff. And I got up here and they told me I had five minutes, and Arkansas is not nearly as far away as California is—and there was only one Senator there to hear me.

But the point is, sometimes a system that does not look like it works very well and indeed it does not at times does indeed work. We had probably 10 people request the right to testify here today for every one that we felt that we could accommodate in a one-day hearing. And we had 12 Congressmen, for example, all of whom will never speak to me again, because I said we cannot accommodate 12 Congressmen, most of them saying the same things.

And so I want you to know the fact that we have to do it this way does not minimize the importance we attach to your testimony or our gratitude to you for taking the time to prepare testimony such as the charts, the books, the maps and so on. They are extremely important to both the members of the committee, but especially to the staff, as the staff goes through all of these things and makes recommendations to members of the subcommittee.

But be that as it may, I want you to ask just a couple of questions.

Mr. Scott, if there are 30,000 miles of roads being left open, how many are being closed?

Mr. SCOTT. Our estimate is about 1,500 miles. We think it is about 4 percent of the maintained roads and non-maintained ways, in total.

Senator BUMPERS. Ms. Davison, he says there are 30,000 miles left open; you say 15,000 miles. Who is right?

Ms. DAVISON. Well, I took the information that I had seen printed somewhere. I honestly do not know the number. But what I do know is the routes that are left open are not comparable to the routes that are being closed, and that would be my concern.

Senator BUMPERS. So you think that if he is right, that there are 30,000 miles of off-road vehicle roads being left open, that you could not find anyplace to have a wilderness experience on those 30,000 miles?

Ms. DAVISON. Perhaps, perhaps I should clarify the types of roads that are going to be left open include the interstate, the freeways, the street—the regular streets in the desert communities, the subdivision streets, the graded and maintained roads, roads that have gravel on them. Those are the routes that are being left open. They do not compare to the routes that are being closed. And that is where I am saying there is an uneven trade-off.

There is no substitution of those lost opportunities and you are losing thousands and thousands of miles of road without, without reason. There is no comparable replacement.

Senator BUMPERS. You and your husband own one or more ORVs?

Ms. DAVISON. We own a mountain bike and a four-wheel-drive vehicle and a truck and camper. Yes, sir.

Senator BUMPERS. Is that what we normally call an off-road vehicle?

Ms. DAVISON. Anything that travels off of a paved highway is considered an off-road vehicle. So it does not matter what type of vehicle. It is where the vehicle is driving. A motor-home could be considered an off-road vehicle.

Senator BUMPERS. Could you describe your four-wheel off-road, vehicle?

Ms. DAVISON. I have a Jeep Cherokee and I also have a 1953 Willies, but that is my husband's.

Senator BUMPERS. A 53 what?

Ms. DAVISON. Willies, it is the old style Jeep.

Senator BUMPERS. You honestly believe that you are going to be deprived by the closing of say 1,500 miles of roads?

Ms. DAVISON. Yes, sir. Honestly, I do.

Senator BUMPERS. You do not think you can find a place to watch the stars on the other 30,000 miles?

Ms. DAVISON. When you are next to the power line or you are next to the freeway or you are on a main thoroughfare to some other destination point, you do not get that same kind of experience.

There are several paragraphs that I highlighted in the Sierra Club book. And it really is an excellent guide. And I would like to be able to go out next weekend with the book and explore some of the areas that are noted in here. But one of the things that is said, over and over and over, is the solitude and seclusion that can be gained in the California desert through these trips. And I think that is the major attraction.

BLM has heard the public and determined that these routes of travel can remain accessible without environmental damage. And that is the concern, is that the bureau has authorized this use, looks at it from an environmental perspective, and says yes, this is possible. The route designation process—I do not know if you are familiar with that—goes through environmental review, and there is criteria used to determine whether the roads are open or closed. Very stringent, subject to public review and comment, those roads are reflected in the maps that the bureau presents to the public. To say this is where you legally can go.

And so, I submit to you again, we have gone through environmental reviews on each and every route of travel, and there are no environmental reasons behind the closures that are being submitted in the legislation.

Senator BUMPERS. You and your husband, do you all traverse uncharted areas of the desert in your Jeep?

Ms. DAVISON. Do you mean—let me—can I ask you a question of clarification?

Senator BUMPERS. You just take off wherever you want to?

Ms. DAVISON. We stay on established routes of travel.

Senator BUMPERS. You do not ever just take off and cross an area where there are no tracks?

Ms. DAVISON. No, it is illegal. Besides, I go out there to see the scenery, to see the creosote on both sides of the road, and to see the vegetation that may be different or unique, take my plant book out there and match up the plants that I see in the book.

Senator BUMPERS. But my question, Ms. Davison, is that agrees there are 15,000 miles of primitive roads that are going to be left open, I do not understand why you are going to be deprived of these experiences you talk about having?

Ms. **Davison**. Because it is the definition of what is a primitive route of travel. And we are talking about primitive roads that would be left open, that are graded every year, or that have gravel down on them, or that have definite signs of being maintained on a regular basis. And that is what the bureau is referring to, I think, in their 15,000 miles.

And what I am saying is that is different from the roads that are being closed. There is a picture in here that is my absolute favorite. I just—it typifies the kind of experience that we enjoy. And you can see it is a very basic type road. There is not a lot of evidence of formal upkeep on that road. It is the kind of road that is referred to in the Sierra Club Travel Guide, and it is almost as if the dilemma that I am facing is, do I want to keep the road in this condition, and possibly lose it to wilderness designation, or do I want to see this road graded and maintained, because that is the only way it is going to stay out of wilderness.

Do you understand what is happening here, the implication of when we say definition of a road? We are saying that this has to be graded and maintained or it can be closed to wilderness. So these types of roads can be lost. And my only other option, if I want to save my experience into this area, is to see the road improved.

Senator **Bumpers**. Would you like to pave it?

Ms. **Davison**. No, sir.

Senator **Bumpers**. Well, this is a very complicated subject. We have several questions that we will reserve for the record because we simply do not have the time here this afternoon.

I thank all of you again for being with us.

Our last panel is Dr. Bruce Pavlik, Associate Professor and Chairman of Biology, Mills College, Oakland, California; Dr. Dennis Murphy, the Director of the Center for Conservation Biology at Stanford; Dr. Clyde Warren, Professor of Anthropology, University of Nevada, Las Vegas; George G. Byers, Director of Public Affairs, Santa Fe Pacific Minerals Corporation; David Fisher, Barstow, California; Roy Ashburn, Supervisor, Kern County, First District in Bakersfield.

The first person on my list is Dr. Pavlik.

STATEMENT OF DR. BRUCE M. PAVLIK, ASSOCIATE PROFESSOR, CHAIRMAN OF BIOLOGY, MILLS COLLEGE

Dr. **Pavlik**. Thank you, Mr. Chairman, for hearing my testimony. I am an Associate Professor and Chair of Biology at Mills. My own research has focused on the ecology and physiology of native plants in plant communities, especially those of the desert.

I have spent 14 years in the California deserts conducting my research, and I serve as vice-president of the California Native Plant Society and chair its rare plant scientific advisory committee.

I strongly recommend passage of S. 11, because it is necessary to preserve a unique and diverse assemblage of plant and animal species in natural communities. Those species and communities have great scientific and humanitarian values that are being threatened by the lack of a strong and effective resource protection standard, that is, by policy.

The deserts of California are very rich in native species in natural communities. They have nearly 2,500 species of plants and vertebrate animals on lands administered by BLM. Many of those species are found nowhere else on the planet. The number of these unique species per square mile of land is higher in our deserts than in the fertile grasslands of the central valley or the montane conifer forest of the Sierra Nevada. In addition, the species richness, the biological richness of the deserts, is also reflected in its natural communities. A total of 46 kinds of air and land communities have been identified from Mono to Imperial counties.

These biological resources remain threatened with extinction despite management under the California Desert Plan. A total of 334 species of plants and animals in the California desert are a special management concern. Of these, 38 are currently listed under existing endangered species laws, and 166 species are candidate-sensitive or otherwise significant as determined by governmental agencies. So our discussion today must not be limited to the desert tortoise and the big horned sheep, but we must also think in terms of these larger numbers of species which exist in the desert.

Habitat destruction and fragmentation effect 80 percent of the listed species, more specifically, 60 percent of all listed species are negatively affected by off-highway vehicles, land development and grazing by live stock. The desert plan does not adequately protect these sensitive species from habitat destruction, because it is based on patterns of land use, rather than on the long term health of critical desert ecosystems. And what I mean by health is not simply the way the desert looks, but really the way it functions.

Perhaps the best example of a listed species which declines, is one we have heard about today, the desert tortoise. And I will not go over all the information that has already been presented on figures regarding 10 percent to 60 percent decline since 1980. But what we have seen is that BLM's own monitoring data have shown that 40 percent to 70 percent of the annual plant production in the western Mojave Desert is now comprised of non-native weeds. This is an indicator of the health, the deteriorating health, of these ecosystems.

The weeds have spread and their growth has been promoted by livestock, allowing them to out compete and replace the native annuals upon which the tortoise depends early in the spring. Sheep grazing is especially detrimental to the desert tortoise, and it occurs when the young tortoises are above ground, using the short critical period of the forage. One pass of a sheep flock can reduce the biomass of annual plants by 60 percent and leave significant number of crushed burrows and tortoises behind.

California's review of the status of the desert tortoise summarizes the view of the scientific community. And this is a quote: "The department recognizes that livestock grazing has had and continues to have profound impacts on the wildlife populations and their habitats. Livestock use has caused massive changes in vegetation in the Mojave and Colorado deserts of California, and these changes have effected the well-being and success of the tortoise population."

These impacts not only impair the persistance of species but entire desert ecosystems are threatened as well. More than a third of the natural communities are so rare or so highly impacted, that they are in need of special protection and management. In this and many other cases, piecemeal land use patterns fragment and disturb sensitive biological systems throughout the California deserts.

This pattern of land management, the traditional pattern of land management, cannot ensure the preservation of important biological resources. California Desert Protection Act will address the special management needs of the California desert, by designating large contiguous parcels of significant habitat as either wilderness or park. Large wilderness or park areas with more natural boundaries, rather than those based on existing uses, are ideally suited to the preservation of sensitive species in their critical habitats.

By increasing the size and continuity of protected lands, the probability of extinction is greatly reduced. In addition, the bill will reduce conflicting management policies and land use patterns that now drive species and communities towards extinction. The expansion of our national park and wilderness system will encompass many listed species that require protected natural habitat. According to maps prepared by the California Department of Conservation, 62 percent of the populations of extremely rare plants and animals occur totally or partially on lands covered by the act.

With respect to the desert tortoise, 66 percent of its known habitat units overlap entirely or partially with lands covered by the act, especially in the proposed Eastern Mojave National Park.

A lot has been said today as well about the relationship between the development of water resources and populations of desert big horn sheep. And I would submit that there is very little hard scientific data that would indicate that installing these geysers actually increases the population levels of the sheep. The sheep may be more easily seen around the springs, but it does not necessarily mean we are having higher birth rates and higher survival rates of those sheep.

In conclusion, I would like to say that the California Desert Protection Act is urgently needed to protect the invaluable biological resources of the desert. So I ask for your prompt and favorable consideration of the legislation.

[The prepared statement of Dr. Pavlik follows:]

STATEMENT OF DR. BRUCE M. PAVLIK SUPPORTING THE CALIFORNIA DESERT PROTECTION ACT, S.11, BEFORE THE SENATE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS, OCTOBER 2, 1989 IN WASHINGTON, D.C.

Mr. Chairman and members of the subcommittee, I am Dr. Bruce M. Pavlik, Associate Professor and Chairman of Biology at Mills College, Oakland, California. I strongly recommend passage of S. 11, the California Desert Protection Act because it is necessary to preserve a highly unique and diverse assemblage of plant and animal species and natural communities. Those species and communities have great scientific and humanitarian values that are being threatened by the lack of strong and effective resource protection standards.

My own research is focused on the ecology and physiology of native plants, especially those of the desert and coast. My studies have taken me throughout the California deserts over the last fourteen years. I have published technical articles on the desert in major scientific journals and have recently coauthored a book on the ecology and conservation of natural vegetation. I serve as a Vice President of the California Native Plant Society (an 8,000 member organization dedicated to the preservation and study of native plants) and Chair of its Rare Plant Scientific Advisory Committee.

The California deserts harbor nearly 2,500 species of plants and animals and 46 natural communities. Many of the species and communities are found nowhere else on the planet and, therefore, represent a wealth of biological material and scientific information. These resources remain theatened with extinction despite management under the California Desert Plan. A total of 334 species of plants and animals in the California Desert are of special management concern. Of these, 199 are either listed or candidates for listing under existing endangered species laws. Habitat destruction and fragmentation affect 80% of the listed species. More specifically, 60% of all listed species are negetatively affected by off-highway vehicles, land development and grazing. The Desert tortiose serves as an example of a listed species that continues to decline since the implementation of the Desert Plan, largely due to the failure of the Plan to protect tortoises and their habitat from livestock grazing and off-highway vehicles. Livestock in particular have been detrimental by reducing community productivity and available forage, spreading exotic plant species at the expense of native plants and destroying burrows and nesting sites by trampling. These impacts not only impair the persistence of species, but entire desert communities are threatened as well. More than a third of the natural communities are so rare or have been so highly impacted that they are in need of special protection and management. The California Desert Protection Act will address the special management needs of the California desert biota by designating large, contiguous parcels of significant habitat as either wilderness or park. In addition, it will reduce conflicting land use patterns that now drive species and communities towards extinction.

The Richness of Biological Resources in the Deserts of California

The deserts of eastern California are rich in native species and natural communities. Nearly 2,500 species of plants and vertebrate animals have been documented on arid lands administered by the Bureau of Land Management (Table 1). This number would easily double or possibly triple if native species of soil bacteria, fungi, protozoans, insects, algae, lichens and mosses were considered in the talley. A large number of unique plant species , found nowhere else in the state or nation (i.e. endemic species), occur in the California deserts. The number of endemic species per square mile of land is higher in our deserts than in the fertile grasslands of the great central valley or the montane conifer forests of the Sierra Nevada (Raven and Axelrod 1978). In addition to species richness, the biological richness of California deserts is also reflected in its large number of natural communities. A total of 46 distinctive kinds of arid land communities have been identified from Mono to Imperial counties (Holland 1986). This incredible richness of species and communities, combined with spectacular geology and geological history, are the reasons why the California deserts are recogized as a scientific resource of global significance.

Table 1. Biological richness in the California deserts

I. Species (BLM 1980)

	number of species[1]
higher plants	1836
fishes	43
amphibians	16
reptiles	63
birds	420
mammals	94
total	2472

II. Communities (Holland 1986)

	number of communities
desert montane forest	3
woodland	11
scrub / steppe	26
riparian / marsh	6
total	46

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[1] (excludes bacteria, fungi, algae, mosses, protists, invertebrates)

Threats to Biological Resources in the California Deserts

Despite the best intentions of the California Desert Plan of 1980, the threats to biological resources persist, and in many cases, they have escalated. Native species and natural communities continue to decline or remain threatened by the same set of problems - habitat destruction, fragmentation, conflicting land use patterns, exotic species and a lack of enforcement of existing regulations.

Within the confines of BLM's California Desert Conservation Area, a total of 38 species of higher plants and vertebrate animals are officially listed under the federal Endangered Species Act of 1973 or the California Endangered Species Act of 1984 (Table 2). The listed species fall into one of three categories: rare (state of California only), threatened or endangered (state and federal) and are entitled to protection from habitat destruction and commercial exploitation. Examples of federally-listed species include the Amargosa vole (*Microtus californicus scirpensis*), Yuma clapper rail (*Rallus longirostris yumanensis*), desert pupfish (*Cyprinodon macularius*) and the Eureka Dunes evening primrose (*Oenothera avita* ssp. *eurekensis*). State-listed species include these as well as the California bighorn sheep (*Ovis canadensis californiana*), Desert tortoise (*Gopherus agassizii*) and Algodones dune sunflower (*Helianthus niveus* ssp. *tephrodes*).

Table 2. Summary of the status of rare, threatened and endangered (RTE) species in the California deserts, 1989

	listed RTE by California or U.S. Govt.[1]	additional species by USFWS/BLM/CA [2]	CNPS RTE species of concern[3]
higher plants	16	58	135
fish	7	2	--
amphibians	2	3	--
reptiles	3	11	--
birds	6	46	--
mammals	4	41	--
total	38	161	135

[1] DFG, State of California 3/1989

[2] Bureau of Land Management 1980, CNDDB 1989 - includes candidate, sensitive and significant species

[3] CNDDB 7/1989

Table 2 also shows that there are many more species that are now being considered for listing under one or more endangered species acts or for special management status by a government agency or private conservation organization. There are 161 of these candidate, sensitive and other significant species of concern according to recent government reports (BLM 1980, CNDDB 1989, DFG 1989). With respect to plants, however, the California Native Plant Society is keeping records on an additional 135 desert species of concern that could be nominated for listing and legal status under the Endangered Species Act. Therefore, a realistic estimate of desert species that have or are awaiting special management status is now 334 (38+161+135).

Many, if not all of these species will require special planning, management, and monitoring, to avoid extinction and to maintain the biological richness of the California deserts. According to a recent GAO report (1989), however, the often conflicting, consumption-oriented policies of the BLM have seriously impaired its own wildlife programs under the Desert Plan. The Plan required BLM to complete and implement 28 ACEC wildlife plans and 55 habitat management plans by 1982 and 1987, respectively. 12 of the wildlife plans were either late or never completed and 33 of the 55 habitat plans were also not completed as of March 1989. Furthermore, 49% of the specific action items that made up the core of the completed plans were never started and another 21% were only partially implemented. Although budgetary problems also contributed, the report emphasized that "both in GAO's view and the views of other agencies, BLM has frequently allowed the needs of competing interests, such as recreation and commercial use, to take precedence over wildlife interests when conflicts have arisen" (GAO 1989, pg 3). It seems unlikely that BLM will be able to provide for the large number of species that are are now threatened by current land-use patterns and policies.

What are the causes of endangerment for so many species in the California deserts? Analys a recent California Department of Fish and Game report (DFG 1989) shows that loss of habitat cau by human activity accounts for threats to 82% of the listed species (Table 3). Habitat loss includes complete destruction of soil, vegetation, water and space resources by land development (e.g. ho and road construction) as well as partial destruction caused by domesticated livestock, vehicle recreation, and the introduction of exotic species to the community. Of these human threats, off-highway vehicle recreation, land development and domestic livestock negatively impact the greate number of listed species (Table 4). This reflects the Desert Plan's failure to reconcile conflicting u for the same piece of desert land, usually at the expense of biological resources. In fact, an examination of the Desert Plan's zoning of multiple-use classes shows there is little or no relations between class boundaries and critical resources. The plan was based on existing uses in 1980, n

Table 3. Causes of endangerment of listed species, 1989[1]. Values are percentages of listed species impacted by each threat. Percentages do not add up to 100 because two species were threatened by both habitat loss and commercial exploitation.

habitat loss by human activity	commercial exploitation	natural rarity	causes unknown
82%	8%	8%	8%

[1] As determined by DFG 1989

Table 4. Percent of listed species negatively impacted by specific, human-caused threats, 1989

off-highway vehicles	land development	grazing & livestock disease	exotic species	water development	mining/ energy
22%	21%	16%	16%	14%	10%

[1] As determined by DFG 1989

the long-term carrying capacity or sustainability of the land and its biota. The system of Areas of Critical Environmental Concern (ACEC's), implemented to protect the most fragile resources, is much too small, arbitrary and fragmented to provide adequate protection for endangered species and their critical habitat. In effect, they will remain endangered or go extinct under the Desert Plan.

Perhaps the best example of a listed species which continues to severely decline under current mangement is the Desert tortoise. Populations in the western Mojave Desert have declined from 10 to 60 percent of their original size since completion of the California Desert Plan in 1980 (DFG 1988), despite the fact that a preserve was established to protect a portion of the large western Mojave population. This was largely due to BLM's attempt to reconcile conflicting uses, especially ORV use and livestock grazing, within other areas of critical habitat for the tortoise. As a result, cattle and sheep have drastically degraded portions of the natural desert communities that are essential for the survival of the tortoise. BLM's own monitoring data show that 40% to 70% of the annual plant production in the western Mojave desert is now comprised of non-native weeds. The weeds have spread and their growth has been promoted by livestock, allowing them to out-compete and replace the native annuals upon which the tortoise depends early in the spring. Not only are food plants removed, so are the perennial shrubs needed for hiding from predators, such as ravens. Several studies have documented that cattle easily crush burrows and nests and trample significant numbers of young tortoises (DFG 1988). Sheep grazing is especially detrimental to populations of Desert tortoise. It occurs in the spring when young tortoises are above ground using the short, critical period to forage for annual plants. One pass of a sheep flock can reduce the biomass of annual plants by 60% (Webb and Stielstra 1979) and leave significant numbers of crushed burrows and tortoises behind (Nicholson and Humphreys 1981). California's review of the status of the Desert tortoise summarized the perceptions of the scientific community: "The Department recognizes that livestock grazing has had and continues to have profound impacts on many wildlife populations and their habitats.... Livestock use has caused massive changes in vegetation in the Mojave and Colorado deserts of California, and these changes have affected the well-being and success of tortoise populations" (DFG 1988, pg. 8).

The listing petition for Desert Tortoise, presented to the California Fish and Game Commission, stated that "BLM has made no provisions to protect tortoises and habitat from cattle grazing, especially in the areas where it occurs on a year-round basis" (pg 21). It identified habitat degradation and fragmentation as the primary reasons for listing the species under the California Endangered Species Act. The California Desert Tortoise Workgroup, which consisted of managers and biologists from BLM as well as representatives from concerned citizen groups, issued its recommendations (1988) for dealing with this crisis. They identified direct threats to the populations (e.g. viral disease, off-highway vehicle (ORV) kills, raven predation, vandalism) and to the habitat itself (fragmentation by the proliferation of roads, cattle grazing, sheep grazing, and vehicle free play) Their recommendations, yet to be fully implemented, were quite clear and in conflict with the Desert Plan: decrease habitat fragmentation by closing roads, restrict or eliminate cattle and sheep grazing in critical areas, and allocate perennial forage and cover to the tortoise. Unfortunately, the recommendations, especially those which affect grazing, "will require careful analysis by a team of biologists, range conservationists, managers and others" (pg 37) and are, therefore, subject to further modification, indecision and delay. It is probable that several localized populations of Desert tortoise will become extinct in the meantime.

Not only are species threatened in the California deserts, but entire communities have become so highly modified and degraded that they no longer support their component species. Of the 46 desert communities identified by DFG (1986), more than one third (17) are considered rare and/or in need of special management consideration. Of the 39 "unusual plant assemblages" noted by BLM in the Desert Plan, 72% (28) are classified as being sensitive, very sensitive or highly sensitive to human disturbance.

Although some sensitive and rare communities of California's deserts are designated as ACEC's or contained within other low intensity use areas (e.g. proposed wilderness or Research Natural Areas), many remain within or adjacent to ORV areas, threatened by exotic species or heavily grazed by sheep and cattle. The latter is especially true of desert riparian communities, which continue to be degraded by overstocking, year-round access and the resulting proliferation of exotic species such as salt cedar (Ohmart and Anderson 1982). BLM's failure to properly protect and restore grazed riparian areas around the country has been recently documented by the the General Accounting Office (GAO 1988). In some cases, even the ACEC designation is inadequate because the boundaries are not drawn to protect the essential adjacent lands which support or protect the rare community. For example, the Eureka Dunes Psammophytic Assemblage (a sand dune community) contains two federally-listed endangered plants and several rare insects. It was designated an ACEC by the Desert Plan, with an area of 21 square kilometers (about 5,000 acres) covering the dune itself and a small portion of the adjacent valley. The surrounding watershed that supplies the dune and its unique community of plants and animals with essential moisture and sand is an area of 1,460 square kilometers (Pavlik and Barbour 1985). BLM's management of that critical portion of the Eureka Dune Psammophytic Assemblage allows for power plant development, livestock grazing, mining, off-highway vehicle travel and water development, all of which can impact the sources of water and sand. Grazing in Eureka Valley has already promoted the spread of competitive, exotic weeds (such as Russian thistle) that now threaten the dune community and its listed species. In this and many other cases, piecemeal land use patterns fragment and disturb sensitive biological systems throughout the California deserts. This pattern of land management cannot insure the preservation of important biological resources.

The Values of Biological Resources in California Deserts

Plant and animal species that have adapted to extreme desert environments are of great scientific value. Even the most common desert shrubs, such as creosote bush (Larrea tridentata) and desert saltbushes (Atriplex species), have already told us much about how plants tolerate drought, high temperature, salt and infertile soil (Mabry and Hunziker 1977, Tiedemann et al. 1984, Smith and Nobel 1986). The ability of certain desert rodents to survive on tiny amounts of water contained within the food they ingest has told us much about the workings of the mammalian kidney (Schmidt- Nielson 1975). Rare or unusual species with unusual habitat requirements often tell us more. For example, the Cottonball Marsh pupfish (Cyprinodon milleri) can live in either freshwater or water that is 2.5 times as salty as sea water (Soltz and Naiman 1978). The Amargosa nitrewort (Nitrophila mojavensis), an inconspicous plant of dry lake beds, completes its life cycle with roots encased in a crusty soil of salt and alkali. We know that such extraordinary capabilities exist among the desert biota, but we have only begun to understand the molecular, organismal or ecological mechanisms behind those capabilities (Berry et al. 1983).

Intact, native communities also have great scientific value. Nutrient cycling, food chains, succession, pollination, competition, and predation are among the phenomena that can only be studied on the community level. Deserts, with their meager rainfall and highly-adapted biota, have distinctive patterns of nutrient transfer, productivity and recovery from disturbance that are widely utilized as model systems (Johnson et al. 1975, Szarek 1979, Webb et al. 1988). This is due to the fact that desert communities are structurally simpler than temperate communities and can be more easily measured and analyzed. The relative youth and dynamism of desert communities is of interest to climatologists who study regional and global climate change in an effort to predict future climates and future environments (VanDevender and Spaulding 1979, Pavlik 1989).

Our knowledge of desert species and communities is now being applied to medical, agricultural, and environmental problems, and scientific values are thus transformed into humanitarian values. Medicines for regulating blood cholesterol levels and preventing heart disease are derived from primroses (Sim and McCraw 1977, Shparer and Marr 1978) such as the endangered Eureka Dunes evening primrose (Oenothera avita ssp. eurekensis). Slow growing desert plants tell us about the cellular processes of aging and death, since longevity in several species is known to exceed 5,000 years (Vasek 1980). The National Science Foundation (1977) has reported on the importance of salt and temperature regulation in desert pupfish as a basis for understanding human kidneys under stress. Desert shrubs show us how we could engineer our crop plants to withstand drought, the leading cause of low agricultural productivity (Boyer 1982, Netzer 1988)). The plants of alkali lake beds demonstrate that it may be possible to circumvent the impending loss of productivity on our irrigated crop land since one third of it (about 77 million hectares) is negatively affected by high soil salinity (Rains et al. 1980). The usual relationship between desert packrats and their surrounding plant community has been used to reconstruct the transition from glacial to modern climates that took place over the last 10,000 years in western North America (Van Devender and Spaulding 1979). The reconstruction helps us predict the possible effects of global warming on our agroecosystems and may suggest strategies for mitigation. The structural analysis of desert shrub communities is currently being used to develop methods of monitoring the global environment from remote-sensing satellites (Ustin et al. 1986). Other communities with more complex architecture are not suitable at this stage in the evolution of this technology for studying the effects of pollution and drought on the life-sustaining ecosystems of the Earth.

The Biological Imperative of the California Desert Protection Act

The California Desert Protection Act will perform several tasks that are absolutely essential to the maintenance of our diverse and invaluable array of arid land species and communities.

1) The act will reduce the threat of habitat loss and fragmentation to a significant degree. Large wilderness or park areas with more natural boundaries, rather than those based on existing uses, are ideally suited to the preservation of sensitive species and their critical habitats. By increasing the size and continuity of protected lands, the probability of extinction is greatly reduced (MacArthur and Wilson 1967, Lewin 1984, Soule and Simberloff 1986).

2) The expansion of our National Park and wilderness system will encompass many listed species that require protected natural habitat. According to maps prepared by California Department of Conservation, 62% of the populations of extremely rare plants and animals occur totally or partially on lands covered by the Act. With respect to the desert tortoise, 66% of its known habitat units overlap entirely or partially with lands covered by the Act, especially in the proposed Eastern Mojave National Park. Aggressive efforts will still be needed, however, to restore damaged communties, manage RTE species populations, remove exotic species, enforce vehicle travel laws and eliminate consumptive uses of the desert where they threaten the integrity and persistence of important biological resources. Park and wilderness designations will enhance these efforts by providing strong and effective management guidelines.

3) The act will help reduce conflicting land use patterns that now drive species and entire communities towards extinction. Sensitive and valuable biological resources will receive the special emphasis and priority needed to insure their persistence.

4) The expansion of the National Park System in the desert will promote public awareness of the region's biological resources.

5) The act will elevate the importance of these fragile lands in the eye of the public, from lands we mine, graze, drive upon and develop to lands we hail as "crown jewels" and part of our common American heritage. The public's confusion over the value of desert land and BLM's complex mandate have undoubtedly contributed to the acts of vandalism and destruction that threaten sensitive biological resources.

The California Desert Protection Act is urgently needed to protect the invaluable biological resources of the desert. I ask for your prompt and favorable consideration of this legislation.

Literature Cited

Berry, J.A., I.P. Ting and E. Zieger. 1983. The Biology of Desert Plants: Opportunities and Needs for Basic Research. American Society of Plant Physiologists, Rockville MD.

BLM (Bureau of Land Management). 1980. California Desert Plan. Final Environmental Impact Statement and Proposed Plan. Appendix Vol E: Wildlife and Vegetation. BLM Desert Plan Staff, Riverside CA.

Boyer, J.S. 1982. Plant productivity and environment. Science 218, 443-448.

CDTW (California Desert Tortoise Workgroup). 1988. Recommendations for management of the desert Tortoise in the California Desert.DFG (Department of Fish and Game). 1988. A review of the status of the Desert Tortoise (Gopherus agassizii). California Department of Fish and Game, Inland Fisheries Division.

CNDDB (California Natural Diversity Data Base). 1989. Listed, candidate and other plant species of concern. Obtained from Ken Berg (California Native Plant Society) and Roxanne Bittman (CNDDB), Sacramento, California.

DFG (Department of Fish and Game). 1988. A review of the status of the Desert tortoise (Gopherus agassizii. State of California Department of Fish and Game, Inland Fisheries Division, Sacramento, CA.

DFG (Department of Fish and Game). 1989. 1988 Annual Report on the Status of California's State Listed Threatened and Endangered Plants and Animals. State of California Department of Fish and Game, Sacramento, CA.

GAO (General Accounting Office). 1988. Public rangelands: Some riparian areas restored but widespread improvement will be slow. GAO/RCED-88-105, Gaithersburg, Md.

GAO. 1989. California Desert: Planned wildlife protection and enhacement objectives not acheived. GAO/RCED-89-171, Washington, D.C.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California Department of Fish and Game, Nongame Heritage Program, Sacarmento, CA.

Johnson, H.B., F. C. Vasek and T. Yonkers. 1975. Productivity, diversity and stability relationships in Mojave Desert roadside vegetation. Bull. of the Torrey Botanical Club 102, 106-115.

Levin, R. 1984. Parks: How big is big enough? Science 225, 611-612.

Mabry, T.J. and J.H. Hunziker (eds.) 1977. Larrea and its Role in Desert Ecosystems. Dowden, Hutchison and Ross, Stroudsberg, PA.

Mac Arthur, R.H. and E. O. Wilson. The Theory of Island Biogeography. Princeton University Press Monographs in Population Biology 1.

National Science Foundation. 1977. The desert pupfish and human kidney research. Mosaic January/February 1977.

Netzer, W. 1988. Scorched fields and sizzling crops intensity pace of development of drought-tolerant plants. Genetic Engineering News 8, 1-33.

Nicholson, L. and K. Humphreys. 1981. Sheep grazing at the Kramer study plot, San Bernadino County, California. Proceedings of the Desert Tortoise Council Symposium 1981, 163-194.

Ohmart, R.D. and B.W. Anderson. 1982. North American desert riparian ecosystems. In: (G. Bender, ed.) Reference Handbook on the Deserts of North America. Greenwood Press, Westport, Connecticut.

Pavlik, B.M. 1989. The phytogeography of sand dunes in the Great Basin and Mojave deserts. Journal of Biogeography 16, 227-238.

Pavlik, B.M. and M.G. Barbour. 1985. Demography of endemic psammophytes, Eureka Valley, California. I. Seed production, dispersal and herbivory. State of California Rare Plant Project, Sacramento, CA.

Rains, D.W., R. C. Valentine and A. Hollaender. 1980. Genetic Engineering of Osmoregulation: Impact on Plant Productivity for Food, Chemicals and Energy. Plenum Press, New York.
Raven, P.H. and D.I. Axelrod. 1978. Origins and relationships of the California flora. University of California Publications in Botany 72.

Schmidt-Nielsen, K. 1975. Animal Physiology: Adaptation and Environment. Cambridge University Press, London.

Shparer, A.G. and J.W. Marr. 1978. Fatty acids and ischaemic heart disease. Lancet 1, 1146-1147.

Sim, A.K. and A.P. McCraw. 1977. The activity of gammalinolenate and dihomogammalinolenate methyl esters in vitro and in vivo on blood platelet function in non-human primates and in man. Thrombosis Research 10, 385-397.

Smith, S.D. and P.S. Nobel. 1986. Deserts. In: (N.R. Baker and S.P. Long, eds.) Photosynthesis in Contrasting Environments. Elsevier Science.

Soltz, D.L. and R.J. Naiman. 1978. The Natural History of Native Fishes in the Death Valley System. Natural History Museum of Los Angeles County, Science Series 30.

Soule, M. and D. Simberloff. 1986. What do genetics and ecology tell us about the design of nature reserves? Biological Conservation 35, 19-40.

Szarek, S.R. 1979. Primary production in four North American deserts. Journal of Arid Environments 2, 187-209.

Tiedemann, A.R., E.D. McArthur, H.C. Stutz, R. Stevens and K.L. Johnson (eds.). 1984. Proceedings - Symposium on the Biology of Atriplex and Related Chenopods. U.S.D.A. Forest Service Intermountain Forest and Range Experiment Station, Ogden Ut. General Technical Report INT-172.

Ustin, S.L., J.B. Adams, C.D. Elvidge, M. Rejmanek, B.N. Rock, M.O. Smith, R.W. Thomas and R.A. Woodward. 1986. Thematic Mapper Studies of Semiarid scrub communities. Bioscience 36, 446-452.

VanDevender, T.R. and W.G. Spaulding. 1979. Development of vegetation and climate in the southwestern United States. Science 204, 701-710.

Vasek, F. 1980. Creosote bush: long-lived clone in the Mojave Desert. American Journal of Botany 67, 246-255.

Webb, R.H., J.W. Steiger and E.B. Newman. 1988. The response of vegetation to disturbance in Death Valley National Monument, California. U.S. Geological Survey Bulletin 1793.

Webb, R.H. and S.S. Stielstra. 1979. Sheep grazing effects on Mojave Desert vegetation and soils. Environmental Management 3, 517-529.

Senator BUMPERS. Dr. Pavlik, I read your statement. And it is really an excellent statement. And the statistics you give are very helpful.

Dr. PAVLIK. Thank you.

Senator BUMPERS. Dr. Murphy.

STATEMENT OF DR. DENNIS D. MURPHY, DIRECTOR, CENTER FOR CONSERVATION BIOLOGY, STANFORD UNIVERSITY

Dr. MURPHY. Thank you. In the past six years I have published more than 100 technical articles in population ecology, population genetics and conservation biology. In 1988 I won the Chevron Conservation Award for designing a habitat plan to allow Waste Management Incorporated to develop the largest landfill site in western North America, while preserving the threatened bay checker spot butterfly.

I would like to submit to the record a report which has just recently been published by the Wilderness Society that was authored by myself and a colleague at the center. And I want to underscore—I want to underscore that I have extensive experience with the conservation of arid ecosystems nationally and internationally in the California desert in particular.

With this very brief background, I wish to make three points, each of which I believe alone is compelling enough to warrant your support for Senate Bill 11. First, the single greatest threat to the biological diversity of intact ecosystems, such as those of the California desert, is the destruction and fragmentation of previously undisturbed land. As natural habitats are destroyed, individual organisms are killed, and eventually species are lost.

Each incremental reduction in the extent of protected desert habitat, reduction in the extent of desert habitat, means a reduction in the number of species that will be protected. Unfortunately, their present desert plan is based on patterns of land use, rather than consideration of the habitat requirements of desert species and the ecosystems that support them. Therefore it does not afford adequate protection to the biological diversity of the California desert.

The proposed wilderness and park areas in Senate Bill 11, in contrast, would protect remaining extensive relatively intact patches of desert habitat. This particular essential habitat supports the desert's wide ranging species that demand the largest protected spaces, such as we have heard the desert big horn sheep, the desert tortoise and other rare threatened and endangered species.

If we continue to convert, abuse and otherwise disturb desert habitats at present rates, these species will be among the very next to vanish. In this light, the preservation goals of Senate Bill 11 constitute a unique and perhaps final opportunity for Congress to express its concern about America's vanishing natural legacy.

The second compelling argument for a large and diverse network of protected desert ecosystems rest on our need to access and further understand how desert plants and animals survive in their uniquely harsh environment. Today scientists speak with a louder singular voice than ever before in expressing their fears concerning the imminent warming of our planet. Climatologists speak not of if, but when and how much, earth will warm. Even the most optimistic climate change predictions suggest that within a century, a different natural world will emerge, one that is biologically less rich, and less stable than our present world. In particular, the agricultural largesse that supported this country's strength will be at great risk. There is no way to know today which species' genes might allow geneticists to create drought resistant crops, which species will facilitate the development of important alternative fuels.

Desert species already adapted to hot dry conditions therefore constitute a genetic storehouse upon which all humanity may depend in the future. The third reason for your support of Senate Bill 11 is only important if we desire to realize continued respect, credibility and leadership in the international arena.

The crucial role of tropical moist forests in ameliorating global climate, in recycling the atmospheric byproducts of modern industrial society, is clear. Our ability to control the environmental fate of our nation ultimately will depend on our ability to influence resource use in foreign countries. If we are unable to muster the political fortitude to protect the California desert, the most extensive largely intact, and virtually unprotected ecosystem in North America, we will not only lose that ecosystem, we will also lose any right to induce environmental stewardship beyond our borders.

Our success at meeting the challenge of protecting biological diversity within our borders is a good measure of our commitment to protect functioning ecosystems worldwide. If we cannot act responsibly in our own backyard, the long-term prospects for biological diversity on the rest of this planet are grim indeed.

Harvard University's E.L. Wilson eloquently has written, "The one process ongoing in the 1980s that will take millions of years to correct, is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendents are least likely to forgive us." With that in mind, Congress has before it what may be that last opportunity to protect a rapidly vanishing American landscape.

I hope you will take this opportunity and give your support to Senate Bill 11.

Thank you, sir.

[The prepared statement of Dr. Murphy follows:]

STATEMENT OF DR. DENNIS D. MURPHY SUPPORTING THE CALIFORNIA DESERT PROTECTION ACT, S.11, BEFORE THE SENATE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS, OCTOBER 2, 1989 IN WASHINGTON, D.C.

Chairman Bumpers and Senators, thank you for the opportunity to address the committee today. I am the Director of the Center for Conservation Biology at Stanford University and in that position I have extensive experience with the conservation of arid ecosystems, and the California Desert in particular.

The 25 million-acre California Desert constitutes one of our nation's most diverse and fragile assemblages of plants and animals. Three major desert systems converge there in a spectacular variety of landforms, soil types, and topography that together support an extraordinarily diverse mosaic of natural habitats. Nowhere else on the North American continent do aridity and temperature extremes create more rigorous or more challenging habitats. In these severe physical circumstances the plants and animals of the California Desert have survived for millennia. The area was once a lush savannah; regional warming and drying gradually reduced or eliminated its broad lakes, creating today's California Desert. Some species remain from previous times, scattered in isolated remnant moist habitats. Other species have evolved characteristics that allow them to thrive in the Desert's heat, dryness, and salinity, conditions not paralleled elsewhere in North America. Scientists fairly compare the plants and animals of the California Desert with those of the Galapagos Islands for their potential for shedding light on important evolutionary processes.

With this brief background, I wish to make three points, each of which, alone, is compelling enough to warrant your support for Senate Bill 11.

First, the single greatest threat to the biological diversity of intact ecosystems, such as those of the California Desert, is the destruction and fragmentation of previously undisturbed land. As natural habitats are destroyed, individual organisms are killed and, eventually, species are lost. Each incremental reduction in the extent of protected desert habitat means a reduction in the number of species that survive. California Desert habitats are increasingly fragmented by agriculture, mining activities, utility corridors, roads, and other developments. Throughout the desert, off-road vehicles (ORVs) are altering soil conditions and killing vegetation, including delicate microfloral crusts that stabilize fragile desert soils, centuries-old plant populations, and subsurface seed banks. The animals that depend on this vegetation for cover or food are also harmed, either directly by ORVs or indirectly by loss of habitat.

Unfortunately, the present Desert Plan is based on patterns of land use rather than on consideration of the habitat requirements of desert species and ecosystems; therefore, it does not afford adequate protection to the biological diversity of the California Desert. The proposed wilderness and park areas in Senate Bill 11, in contrast, would protect remaining extensive and relatively intact patches of desert habitat. This essential habitat supports the desert's wide-ranging species that demand large protected spaces, such as the desert bighorn sheep, the desert tortoise, and other rare, threatened, and endangered species. If we continue to convert, abuse, and otherwise disturb desert habitats at present rates, these species will be among the next to vanish. In this light, the preservation goals of Senate Bill 11 constitute a unique and perhaps final opportunity for Congress to express its concern about America's vanishing natural legacy.

The second compelling argument for a large and diverse network of protected desert ecosystems rests in our need to access and further understand how desert plants and animals survive in their uniquely harsh environment. Today scientists speak with a louder singular voice than ever before in expressing their fears concerning the imminent warming of our planet. Climatologists speak not of if, but when and how much Earth will warm. Even the most optimistic climate change predictions suggest that within a century a different natural world will emerge, one that is biologically less rich and less stable than our present world. In particular, the agricultural largess that has supported this country's strength will be at great risk. There is no way to know today which species' genes might allow geneticists to create drought-resistant crops or which species will facilitate development of important alternatives fuels. Desert species, already adapted to hot, dry conditions, constitute a genetic storehouse upon which all of humanity may depend in the future.

The third reason for your support of Senate Bill 11 is only important if we desire to realize continued respect, credibility, and leadership in the international arena. The crucial role of tropical moist forests in ameliorating global climate and recycling the atmospheric byproducts of industrial society is clear. Our ability to control the environmental fate of our nation ultimately will depend on our ability to influence resource use in foreign countries. If we are unable to muster the political fortitude to protect the California Desert, the most extensive, largely intact, and virtually unprotected ecosystem in North America, we will not only lose that ecosystem, we will also lose any right to induce environmental stewardship beyond our borders. Our success at meeting the challenge of protecting biological diversity within our borders is a good measure of our commitment to protect functioning ecosystems worldwide. If we cannot act responsibly in our own backyard, the long term prospects for biological diversity on the rest of this planet are grim indeed.

As Harvard University's E. O. Wilson so eloquently has written, "the one process ongoing in the 1980s that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us." In two hundred years we have evolved from a society challenged to survive in the face of daunting wilderness, to a society that now is challenged to preserve its wilderness. Senators, Congress has before it what may be a last opportunity to protect a rapidly vanishing American landscape. Please, take this opportunity, and give your support to Senate Bill 11. Thank you.

Senator **Bumpers**. Thank you very much. And just one little comment at that point, Dr. Murphy.

I was down in the Amazonian jungle in July, June or July, I forget which. And we were trying to see how much the jungle had been savaged by slashing and burning. And in visiting with President Sarney, he gave us a dutch-uncle lecture and said, you know, why do you not go tend to your own business; 20 percent of the total greenhouse effect is coming from the United States, and 40 percent of that is coming out of the exhaust of your automobiles, so do not come lecturing us. And I must say as a lawyer, we were sort of going to into court with unclean hands.

Dr. Warren.

STATEMENT OF DR. CLAUDE N. WARREN, PROFESSOR OF ANTHROPOLOGY, UNIVERSITY OF NEVADA

Dr. **Warren**. I am Professor of Anthropology at the University of Nevada, Las Vegas. I am an archaeologist. I have conducted research in the Mojave Desert and California desert, generally, for the past 30 years.

Thank you for the opportunity to speak regarding the cultural resources of the California deserts. The cultural resources are—might be characterized as diverse, numerous, and fragile, and they are also heavily impacted already. These vary from 10,000-year-old hunting camps on what was Pleistocene lakes to modern ghost towns, that is historic mining towns, to rock art sites, ancient villages, and so on.

By 1980, there were over 100,000 archeological sites recorded for the California desert. These are the—these are the basis for the data for which history is written. The human record begins about 10,000 years ago in the Mojave desert, and covers a time during which this area has changed from the land lakes to the desert we know today. As such, it provides a very interesting and unusual opportunity to study man's adaptation to an increasing arid environment. Other priceless resources include a very large prehistoric art assemblage involving giant intaglios up to two miles in diameter, in some cases, and there are human and animal figures that are almost 500 feet in length.

There are also petroglyphs and pictographs of the more standard sort that go back at least 2,000 years at various places in the desert. All of these resources are non-renewable; once they are destroyed, they will not come back. They are fragile and they are heavily impacted. And their number is finite. Virtually every known intaglio already has vehicle tracks across it. In the BLM study entitled, "Impacts: Damage to Cultural Resources of the California Desert", there are 3,000 sites reported upon which were a sample survey of the resources of the desert. Of these, 36 percent were already listed as extensively damaged in 1980.

Of the more obvious sites, that is, the larger village sites and the historic sites that have more data, 60 percent of these, over half of them, were already extensively damaged. The most common causes of damage are vandalism and ORV activities which may be linked, by the way: neither of which certainly has been reduced in the past

10 years. Obviously, the ORV activities are increasing as the populations increase.

The archeological data from the California deserts are as valid historical data as the manuscripts that historians use to write histories. Every archeological site is a fragment of history, and every archeological site destroyed without record is a fragment of history lost. BLM management plan does not adequately address the conflict between the modern use of the desert in the management and preservation of archeological resources. Ancient and modern users of the desert tend to be attracted to the same areas, apparently for similar reasons, such as the presence of water, and the result is usually almost always the destruction of the ancient resources to benefit the modern users.

As a few examples, cattlemen or other people modifying springs are usually modifying archeological sites. ORV enthusiasts running through mesquite dunes are also probably destroying archeological sites at the same time. Every region of the California desert has archeological sites whose management conflicts with recent—with current uses of the desert. The present management plan has failed to reconcile these conflicts, conflicting uses of the desert, which results in continued degradation of these ancient sites.

Preservation of archeological and historical sites in their natural setting is not possible where ORVs compete in races or are freely at play, where strip mining occurs or springs are modified. The Desert Protection Act ensures that this record of man's history will be preserved to some extent. And provides also for the interpretation and the education of the public regarding these resources.

In closing, I would like to point out that we may have a lesson that we could learn from these archeological resources. As we look at the desert landscape today, we can see the effects off road vehicles, mining and cow industries, transmission lines, roads, railroads and numerous other things that are modifying the face of the desert. We assume that these man-made scars will disappear. However, there is evidence that this may not be the case. There are clearly visible trails that can be followed for miles through the California desert, and these trails are not modern trails; these trails are hundreds and sometimes thousands of years old.

These trails are the negative environmental impact of sandal clad feet of a few aboriginal Americans, walking along established routes. That being the case, there can be no doubt that the ORV racing has left tracks and will be clearly visible to our descendants several thousand years hence: tracks that will reveal how we used and how we abused and, perhaps, how we destroyed the California deserts.

I think it is time to consider what we are leaving our great grandchildren. Perhaps it is time that we did limit our own experiences in the California desert so that our great grandchildren will have some of the desert heritage to appreciate themselves.

Thank you.

[The prepared statement of Dr. Warren follows:]

Statement of Claude N. Warren, PhD, Professor of Anthropology, University of Nevada, Las Vegas, supporting S. 11, the California Desert Protection Act, before the Senate Subcommittee on Public Lands, National Parks and Forests, October 2, 1989.

My name is Claude Warren, I am Professor of Anthropology at the University of Nevada, Las Vegas. I am an archaeologist and I have been conducting research in the Mojave and Colorado deserts for 30 years. I would like to thank you for the opportunity to speak to this committee regarding the historical and archaeological resources of the California deserts.

The archaeological and historical resources of the California deserts are diverse, numerous, and fragile. Sites vary from 10,000 year old hunting camps beside Pleistocene lakes (now dry) to historic mining camps and ghost towns, to rock art sites, ancient villages, prehistoric quarries and workshops, and mines where metal ores were extracted by Europeans. This great diversity of sites is matched by their large number: over 100,000 were recorded in the California deserts by 1980, and there are many more yet to be discovered.

These resources are the data from which history is written and by which ecological questions are studied. Paleontologists have unearthed prehistoric camels, saber-toothed cats, three-toed horses and other species from the desert's fossil beds. Fossil mammal discoveries from the California deserts have played an important part in establishing a correlation between North American and European fauna of the Pleistocene age, 65 thousand years ago. The human record covers more than 10,000 years during which the area changed from a land of lakes to the deserts we know today. There are controversial data suggesting man's presence more than 50,000 years ago. The California deserts contain a wealth of historical and archaeological data of considerable value to the study of man's adaptation to these changing environments.

Other priceless resources include one of the largest concentrations of prehistoric art anywhere in the world. Remarkable giant intaglios, a rare form of prehistoric art, are found here. Some of these intaglios are geometric designs or mazes up to 2 miles in diameter; there are human and animal figures, the longest of which is 489 feet. Petroglyphs and pictographs abound dating from more than 2000 years ago to the historic period.

Archaeological and historical sites are nonrenewable and fragile. They have been heavily impacted, and their number is finite. Almost all the desert's known intaglio sites have been cross-cut by ORV tracks. The BLM's study, Impacts: Damage to Cultural Resources in the California Desert, (Lyneis et al. 1980:iii) reported that of the 3000 sites recorded in the sample areas surveyed for the California Desert inventory, 36% had already been extensively damaged by 1980. The more obvious prehistoric villages and historic sites were even more severely impacted with 60% being extensively damaged. The most common causes of damage were vandalism and ORV activities, neither of which has been reduced in the past 10 years. And there are also numerous other activities that negatively impact these resources. These archaeological data are as valid historical data as the manscripts used by historians. Every archaeological site is a fragment of history and every archaeological site destroyed without record is a fragment of history lost.

The present BLM management plan creates a conflict between modern use of the desert and management and preservation of archaeological resources. The present plan does not adequately protect these ancient sites because it is based on patterns of land use rather than preservation of these fragile sites. Ancient and modern users of the California deserts have been attracted to the same localities, often for the same reasons, and the result is destruction of the ancient resources. The cattleman develops a spring and destroys an ancient campsite. The ORV enthusiast drives over mesquite dunes and destroys the sites where prehistoric man camped while collecting mesquite beans. The margins of ancient lakes and stream beds are areas where prehistoric man often camped and modern man now plays. Every region of the California deserts has archaeological sites whose management conflicts with the current uses of the desert. The present management plan has failed to reconcile these conflicting uses of the desert and has allowed continued degradation of these ancient sites.

Preservation of archaeological and historical sites in their natural setting is not possible where ORVs compete in races, strip mining occurs, or cattlemen freely modify the areas around springs. These conflicting uses of the desert make adequate management of these historical resources extremely difficult if not impossible. The California Desert Protection Act, S. 11, by designating critical areas as wilderness and national parks, ensures this record of man's history will be preserved. National Park management also ensures not only preservation of these sites, but provides for the interpretation and education of the public regarding the human history of this important area.

The fragile nature of the desert environment is seen in the archaeological record and from this record perhaps we have something to learn. We can see upon the desert landscape the effects of the off road vehicles, mining and cattle industries, transmission lines, roads and railroads, vandalism, and even the use by the casual tourist. We tend to assume these man-made scars upon the face of the desert will disappear. However, the archaeological record gives evidence to the contrary. There are clearly visible trails that can be followed for miles through the California deserts. These trails are the negative environmental impact of the sandal clad feet of a few aboriginal Americans walking along established routes. These trails are hundreds and in some cases thousands of years old. There is no doubt that ORV racing has left tracks that will be clearly visible to our descendants several thousand years hence, tracks that will reveal how we used, abused, and perhaps destroyed the California deserts. It is time to consider what we are leaving our great grandchildren. It is time to act so that we may pass on to succeeding generations a desert heritage in a condition of which we can be proud.

Senator **Bumpers**. Thank you.
Mr. Byers.

STATEMENT OF GEORGE G. BYERS, DIRECTOR, PUBLIC AFFAIRS, SANTA FE PACIFIC MINERALS CORP.

Mr. **Byers**. Thank you, Mr. Chairman.

I am George Byers, director of public affairs, for Santa Fe Pacific Minerals Corporation. I am here to correct a myth about the California desert, Mr. Chairman; it is not all public land.

Santa Fe Pacific owns 418,000 acres of private property which will be placed into wilderness or park additions under S. 11. And 132,000 acres of these lands have high mineral potential for a wide variety of mineral commodities. Our lands are shown on the maps to your left, and then those with high mineral potential are highlighted in orange.

Our concern is that S. 11 completely fails to acknowledge our ownership and it does not address compensation for taking of these lands. Placing our lands in wilderness and park will substantially diminish their value and it is going to pose manageability problems for both the BLM and the National Park Service. This will be simply a taking of our properties without compensation.

We believe that Santa Fe Pacific's lands with high mineral potential should be excluded completely from the park or wilderness areas proposed under S. 11. And I would like to address the term mineral potential just for a second. It has been ridiculed, but in fact, there is such a term and it is a valid term. Our company has a coal mine in New Mexico which is on property that the BLM classified as zero to low potential for coal development. We now have about $160 million invested there and about 165 employees. In Nevada, on our lands, we have property that in 1986 had zero potential for any mineral development. People literally walked over it going from point A to point B. We have now identified a five million ounce gold ore body and we are developing that property on land with no mineral potential.

Again, 132,000 acres of our lands with high potential are going to be in wilderness or park additions. I would point out that the BLM and its recommended suitable WSAs identified only about 18,000 acres of our lands which are in those recommended suitable WSAs, of our lands with high potential. The reason is, because of the mineral potential number one, and because of the manageability problems which private inholdings are going to pose for the managing federal agencies.

Wilderness is important, Mr. Chairman. Just last October, our company engaged in an exchange we completed with the BLM in Arizona; 140,000 acres of our land was exchanged and that is going to enable, because of the checkerboard effect, three agencies—the Park Service, the Fish and Wildlife Service and the BLM—to bring before you, perhaps very soon, over 520,000 acres of federal wilderness. But now we see a tendency for Congress to shortcut the wilderness review program that it established in FLPMA.

The result of S. 11 to our lands is going to be that we are going to have hundreds of thousands of acres of private property, literally frozen, in a twilight world of uncertainty in these areas. We will be unable to generate revenue. And the government is going to be unable to manage these lands. If Congress wants these lands, address acquisition now in the bill, not later. Take the lands and compensate Santa Fe Pacific immediately for their value.

Our solution, Mr. Chairman, is to amend S. 11 to provide for an immediate legislative taking of the Santa Fe Pacific lands which do not have high mineral potential. Also, Mr. Chairman, the sponsors of S. 11 do exchanges as a principle means of acquisition. In the California desert since 1979, Santa Fe Pacific Realty Corporation, our sister company, has exchanged with the BLM under its California Desert Plan, some 72,000 acres of land, in places like the Granite Mountains and the Providence Mountains, in the Coachella Valley.

These exchanges once were easy, but they are not any longer. Since those exchanges, BLM has identified about 127,000 acres of our lands which they consider high priority for acquisition. But exchange for that much land just is not possible anymore, because there is not enough suitable and unencumbered federal land available for exchange. And if exchange for 127,000 acres is not possible, Mr. Chairman, it is unrealistic to assume that BLM can accommodate exchanges for over three times that much as S. 11 would require under BLM's present exchange authority.

And now we have got the additional problem of the desert tortoise listing. This has essentially eliminated all other potential exchange possibilities; 82 percent of the desert tortoise area is outside of areas which are encompassed under S. 11. Our solutions to this exchange impasse are to facilitate equal value determination by the Secretary of Interior, amend FLPMA Section 206 to allow interstate exchanges as the public land law review commission recommended many years ago, and finally, direct that surplus federal urban land in California, under GSA jurisdiction or soon to be surplus military lands, that those be made available for exchange in California and limit the acreage to that necessary under S. 11.

In summary, Mr. Chairman, Congress should legislatively take the lands we own within proposed wilderness or park additions which do not have high mineral potential. Leave the lands that we own with high mineral potential out of park and wilderness additions. And if Congress does not take these lands, then it should hold in abeyance any action on them until BLM has completed exchanges with Santa Fe for these lands. And finally, facilitate exchanges through the measures I mentioned earlier.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Byers follows:]

Statement of

George G. Byers
Director-Public Affairs
Santa Fe Pacific Minerals Corporation

FOR

SANTA FE PACIFIC CORPORATION
SANTA FE PACIFIC REALTY CORPORATION
SANTA FE PACIFIC MINERALS CORPORATION

ON
S.11

"The California Desert Protection Act"

Before the

SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS
ENERGY AND NATURAL RESOURCES COMMITTEE
UNITED STATES SENATE

Washington, D. C.

October 2, 1989

Mr. Chairman and members of the Subcommittee, my name is George G. Byers and I am Director-Public Affairs of Santa Fe Pacific Minerals (SFPM), headquartered in Albuquerque, New Mexico. SFPM is the hard minerals management and mining group of Santa Fe Pacific Corporation (SFP). Santa Fe Pacific, which is headquartered in Chicago, Illinois, is also the parent company of Santa Fe Pacific Realty Corporation (SFPR), headquartered in San Francisco, California, which owns some 1.3 million acres of land in California's Mojave Desert. My testimony today is given on behalf of the three companies, SFP, SFPR and SFPM. For convenience I will refer to them collectively as Santa Fe Pacific.

Santa Fe Pacific is vitally interested in S.11 inasmuch as this bill would include in proposed new wilderness and park units some 382,000 acres of fee lands and 36,000 acres of severed mineral interests owned by SFPR, as shown on the attached tabulation. Santa Fe Pacific's interest in S.11 stems from the fact that the California Desert is acknowledged by scientists as one of the Earth's most unique and mineral-rich regions. Much of Santa Fe Pacific's lands in the California Desert which S.11 would include in federal preservation management units are believed to contain an abundance and diversity of mineral wealth. The locations of these mineral-rich lands with respect to the proposed wilderness and park units in S.ll are shown on the maps which I have brought with me today.

Placing Santa Fe Pacific's Lands in Wilderness or Park Units Will Substantially Diminish Their Value and Pose Manageability Problems for The Federal Agencies.

Although S.ll evidences no intent to extinguish Santa Fe Pacific's property rights or to otherwise acquire these properties, the practical effect of the proposed designations is to make it virtually impossible to exercise our existing development rights in those lands and minerals. There are two principal reasons for this. First, we will be subjected to additional stringent regulatory requirements with respect to access to and development of our property, which will destroy or significantly impair the economics of any proposed mining projects. Second, we will be exposed to inevitable adverse public reaction if we should attempt to exercise our legal rights which have been preserved. Consequently, inclusion of our land in proposed new wilderness or park units would be tantamount to a taking of our private property interests.

The effect that a restrictive federal land classification can have on non-federal property rights was dramatically illustrated by a representative of the Osage Indian Tribe in testimony given last year before this Senate subcommittee on proposed legislation to establish the Tall Grass Prairie National Preserve in Oklahoma. Hearing on S.1697 before the Subcommittee on Public Lands, National Parks and Forests of the Senate Committee on Energy and Natural Resources, 100th Cong., 2nd Sess. (1988). The Osage representative testified that the mere threat of placing Osage mineral rights within a proposed national park preserve discouraged oil and gas operators from nominating even a single lease within an area of the proposed preserve for competitive bidding, even though the area was considered to have high potential for oil and gas production. Id. at 93 and 134. He explained that the operators' fear of (1) increased regulation which would result from the inclusion of the area within the proposed national park preserve and (2) lawsuits (by environmental interests) to block development substantially impaired the value of the Osage mineral estate and deprived the Tribe of substantial lease bonuses and royalty income. Id at 93.

Santa Fe Pacific Lands With Significant Mineral Potential Should Be Excluded From Parks or Wilderness Areas.

The maps which I have with me today, and which I would like to submit for the Subcommittee's files, show the extent of Santa Fe Pacific's land ownership in the California Desert with respect to Wilderness Study Areas (WSA's) recommended as suitable or non-suitable for wilderness designation by the BLM, and with respect to the park units and wilderness designations proposed in S.11. I would like to discuss the significant areas of conflict between our lands with high mineral potential and the proposals in S.11.

Santa Fe Pacific endorses wilderness as an important national priority, as our recent exchange of lands in twelve BLM WSA's in Arizona to enable the designation of some 520,000 acres of wilderness in that state makes abundantly clear. However, wilderness proposals in S.11 must be carefully balanced against other important national needs, such as mineral production. "How much wilderness is enough?" is, in our view, a necessary and legitimate question for Congress to address.

In this regard, we are seriously concerned about the tendency in recent years for Congress to "shortcut" the BLM wilderness review program established in 1976 in Section 603 of FLPMA by acting on wilderness legislation before the BLM recommendations have received Secretarial and Presidential review and the President's recommendations have been forwarded to Congress. Since all of the federal lands included in the BLM wilderness study areas are protected from impairment pending final Congressional action on them, we see nothing to be gained by precipitous legislative action which aborts the Executive Branch study and review process before it has run the course provided for in FLPMA.

Of Santa Fe Pacific's approximately 418,000 acres of fee lands and mineral interests affected by S.11's park and wilderness proposals, we have identified approximately 134,000 of these acres as having high potential for future economic mineral development. These are highlighted on the maps by yellow dots. By contast, only about 17,920 acres of these high potential lands lie within BLM's "recommended suitable" WSA's.

Major areas of conflict with S.11's proposals are listed on Attachment A to my statement. It is significant to note that the maps demonstrate that BLM has sought to minimize any conflicts with Santa Fe Pacific's property rights or areas of high mineral potential by making "preliminary suitable" wilderness recommendations on only four WSA's which contain significant amounts of our property. These four WSA's include the Orocopia Mountains, the Newberry Mountains, the Rodman Mountains and the Chemehuevi Mountains. Appropriate boundary adjustments were often made by BLM to exclude our lands from other "recommended suitable" areas.

The careful land use planning and resource inventories which BLM has undertaken in the Desert under the provisions of FLPMA have recognized both the high mineral potential in these lands and the inherent suitability and manageability problems which our private property poses in wilderness and park units. Two recent reports by the General Accounting Office point out the great extent to which non-federal property rights make it difficult and expensive to protect wilderness and park characteristics. ("Non-Federal Land and Mineral Rights Could Impact Future Wilderness Areas," GAO/RCED-87-131, June 1987; "Private Mineral Rights Complicate the Management of Eastern Wilderness Areas," GAO/RCED-84-101, July 26, 1984). Because of the manageability considerations which would confront both the BLM and the National Park Service,

and because of the certain adverse effects of wilderness or park designation on access to and development of our private lands, S.11 should designate for park or wilderness management only those lands which do not have significant private mineral potential.

Santa Fe Pacific's Preference Is for A Legislative Taking of Its Lands Proposed for Wilderness or Park Additions Which Do Not Have Significant Mineral Potential.

For those proposed wilderness and park areas which include our lands without high mineral potential, Congress must ensure that Santa Fe Pacific is compensated for the loss of use of its lands. In recent Congresses, there has been a tendency to enact legislation which places large areas of private lands within restrictive federal land classifications but does not adequately deal with questions of how the private lands are to be acquired and how their owners are to be compensated. Congress in effect takes the lands and leaves the landowner to hope that some time in the future the appropriations committees will recommend and Congress will appropriate money to permit acquisition of the lands. The reality -- particularly in this era of tight federal budgets -- is that it may be many years, if at all, before Congress appropriates money to acquire the private lands subjected to these federal restrictions.

Santa Fe Pacific wants to avoid the predicament of having hundreds of thousands of acres of its lands frozen indefinitely in this status. If Congress wants to make use of Santa Fe Pacific lands for parks or wilderness, it should take them and compensate Santa Fe Pacific for their value. It should not reduce Santa Fe Pacific to the status of an annual supplicant before the appropriations committees. Consequently, Santa Fe Pacific proposes that S.11 be amended to provide for an immediate legislative taking of the Santa Fe Pacific lands which do not have high mineral potential and which Congress may choose to place in wilderness or parks.

Land Exchanges Can Play Only A Limited Role Under Existing Law.

The sponsors of the proposed California Desert Protection Act view land exchanges as the principal means of acquiring private inholdings within wilderness areas and parks. Indeed, they have said that this bill will not be a drain on the federal treasury because no federal funds need be appropriated to acquire the extensive private and state holdings affected by this bill. However, although Santa Fe Pacific companies have a long record of accommodating the national interest in creating parks and wilderness areas by agreeing to exchange our lands out of critical areas, land exchanges can play only a limited role as a tool for acquiring the unprecedented amount of state and private lands which S.11 would include within its proposed parks and wilderness areas.

Since 1979 Santa Fe Pacific Realty has completed numerous land exchanges with the BLM in California, some in the California Desert consistent with the BLM's California Desert Plan, including 72,000 acres in furtherance of federal wilderness, recreation and wildlife programs. More recently, BLM has identified some 127,000 acres of Santa Fe Pacific Realty Corporation's California Desert lands which it wishes to acquire. These lands are identified in Attachment B to my testimony. Although Santa Fe Pacific would like to accommodate the BLM's desire to acquire these lands, it has been unable to identify sufficient acreages of suitable federal land which are unencumbered by leases or claims and classified by BLM as available for exchange in California. Since an insufficient amount of suitable federal lands are available even now for this 127,000 acres which BLM believes to have high priority for acquisition, it is unrealistic to assume that the BLM could exercise its present land exchange authority to acquire over three times as much private and state lands. This problem has been exacerbated by the recent addition of the desert tortoise, which has extensive habitat on BLM and SFPR lands in the California Desert, to the endangered species list.

BLM's exchange authority is contained in section 206 of the Federal Land Policy and Management Act ("FLPMA"), 43 USC §1716. Section 206 prohibits interstate exchanges, thus placing BLM land available for exchange in other western states off limits. Should Santa Fe Pacific identify some federal lands in other states which it would be willing to accept as part of an equal value exchange for its California lands, the FLPMA prohibition would prevent such an exchange. The only current alternative is for special legislation authorizing interstate exchanges, but this route has proven to be very costly, time-consuming and sometimes politically controversial, as the Aerojet and Big Cypress/Indian School legislation of the last Congress amply demonstrate.

Even if the FLPMA prohibition on interstate exchanges were relaxed, the magnitude of recent preservationist proposals in other western states could overwhelm the BLM's ability to utilize this authority as a means to acquire all of the desired California Desert lands. For example, three statewide Arizona wilderness bills, H.R. 2570, H.R. 2571 and S. 1080 have been introduced in this Congress which could affect as much as 96,000 acres of our reserved minerals in Arizona. Although Santa Fe Pacific completed an historic 141,000 acre mineral exchange with the BLM and the Park Service in Arizona in October, 1988, if the House version of this bill is adopted the BLM in Arizona will have to identify and classify for disposal an equal amount of geologically equivalent lands in exchange for the 96,000 acres of reserved minerals held by Santa Fe Pacific. This much additional federal land with similar mineral potential may no longer be available for exchange in Arizona.

Finally, even administrative land exchanges can sometimes be time-consuming and expensive. Following the enactment of legislation establishing the El Malpais National Conservation Area and National Monument in P.L.100-225, Santa Fe Pacific began working with the BLM on an exchange of mineral estates specifically authorized by that law. This exchange is currently ensnarled in a number of bureaucratic tangles, including a requirement that the BLM perform an archaeological survey, the cost of which could exceed the value of the mineral lands to be exchanged.

Possible Solutions to The Land Exchange Problem.

We recommend several ways in which the Secretary's land exchange authority could be modified to address the foregoing problems which limit the usefulness of land exchanges as a land acquisition tool in the California Desert.

First would be to facilitate equal value determinations by the Secretary along the lines of section 606 of S.11, which appears to be patterned after the exchange authority contained in the El Malpais legislation discussed above. The second would be to amend section 206 of FLPMA to permit interstate exchanges. In our view, the present restriction serves no discernible national interest. In 1970 the Public Land Law Review Commission recommended that "generally, within each department, all federally owned lands otherwise available for disposal should be subject to exchange, regardless of agency jurisdiction and geographic limitation." (Recommendation 126 [emphasis added]). That PLLRC recommendation is one of the few that has not yet been enacted by Congress. To the extent that there may be any persuasive reasons why repeal or modification of FLPMA's restriction on interstate exchanges would not be appropriate, interstate exchanges could at least be authorized for private lands included within the new wilderness and park areas proposed in S.11 upon appropriate conditions tailored to meet whatever objectives underlie the FLPMA restriction. We urge that serious consideration be given to an appropriate amendment along these lines.

Finally, as a third complementary solution, Congress should direct that surplus federal urban lands in California or elsewhere under the jurisdiction of the General Services Administration ("GSA") be made available for exchange. This directive by the Congress could also apply to military lands in California that may become surplus in the near future as the result of base closures. Although the Federal Property and Administrative Services Act (40 USC §471 et seq.) appears to authorize GSA to utilize exchanges, it is our understanding that they are seldom utilized, certainly not in connection with massive public land programs like those involved in S.11.

Santa Fe Pacific sees no reason why surplus lands held by GSA should not be available for exchange to implement programs in the national interest administered by federal public land management agencies. SFPR already has extensive experience in developing its urban land holdings in California. On the basis of an equal value exchange, substantially fewer acres of surplus federal urban or military lands would be exchanged for their lands in the California Desert. An authorization limited to exchanges made necessary by S.11 would suffice, and we understand there is recent precedent for such a limited approach. We are prepared to work with the Committee on these recommended approaches to facilitating exchanges.

In addition to making GSA lands more readily available for exchange, Congress should authorize the Secretary to grant "bidding rights" in payment for private lands that would be acquired in the California Desert. These rights could be used by the land owner to bid on surplus GSA property. The Secretary has such authority for the purposes of acquiring lands within the Kaloko-Honokau National Historical Park (16 USC §396d et seq.).

Let me summarize our position on the proposed designations in S.11. First, Santa Fe Pacific believes that the mineral lands which we have shown on our maps as having high potential for economic development should be excluded completely from any wilderness or park designation. Second, we believe Congress should legislatively take the remaining lands Santa Fe Pacific holds within the proposed wilderness areas or park additions. Third, if Congress does not take the remaining lands, it should hold in abeyance any action on them until BLM has successfully completed exchanges with Santa Fe Pacific for such lands. There are several complementary actions which could be taken to facilitate such exchanges, including (a) amending FLPMA to permit interstate exchanges; (b) making available for exchange suitable federal lands which are not now available (i.e., identifying as suitable for disposal by exchange lands which are managed by agencies other than the BLM); (c) granting bidding rights on these lands; and, (d) requiring BLM and other agencies to reassess and augment their existing inventory of lands which are available for disposal by exchange.

Santa Fe Pacific Supports BLM's California Desert Plan.

On the merits of the proposed land designations in S.11, Santa Fe Pacific strongly endorses the multiple use goals for the management of the California Desert set out by Congress in 1976 in Section 601 of FLPMA and now embodied in BLM's California Desert Plan. Based on our experience with the California BLM, we believe it can continue to do a responsible job of managing the land encompassed in the California Desert in the national interest as authorized in FLPMA, particularly if BLM's enforcement and interpretive activities are more adequately funded. Consequently, the proponents of National Park status for many of the California Desert lands should be required to present a compelling case in support of their proposal to change administrative jurisdiction over them.

Santa Fe Pacific has demonstrated its ability to work with the BLM in the California Desert and other states to further important national natural resource objectives in the public interest. We look forward to being able to continue this cooperative approach in the California Desert to allow appropriate protection for truly high quality wilderness or park additions while enabling responsible multiple use to continue on the mineral-rich private, state and federal lands. We believe it will be a far easier and fairer process for BLM to acquire only the 127,000 acres of Santa Fe Pacific lands which it has identified for acquisition in areas of high wilderness interest, than to acquire over 400,000 acres as S.11 would require.

Water Use Implications of Wilderness and Park Designations.

A major defect in S.11 is that its proponents have failed to identify the specific wilderness values and park purposes which will require water, or to provide an estimate of the annual water requirements for such purposes and the resulting impacts on existing users and uses. It seems clear that Congress needs this information to make informed decisions on the water use implications of the proposed wilderness and park designations.

In that regard, Mr. Chairman, I would like to conclude my testimony with some comments on how Santa Fe Pacific believes any water rights necessary to achieve the purpose of any wilderness and park designations in the California Desert should be acquired. Much recent wilderness legislation has been stymied because of strongly held differing views as to whether Congress should (1) direct that water rights for such lands be acquired under state law, (2) say nothing about the subject and let the courts decide whether wilderness legislation "impliedly reserves" a necessary water right as a matter of federal law, and if so, its magnitude, or (3) expressly reserve a federal water right for such lands.

S.11 is silent on the water rights issue. This means that the courts will have to attempt to discern Congressional intent with respect to this critical issue as best they can. My lawyers advise me that it is possible that the courts will find that Congress impliedly reserved enough unappropriated water in any surface streams in or adjacent to the new wilderness and park areas to satisfy their minimum water requirements, and might even extend the "implied reservation doctrine" to the groundwater basins underlying those areas.

Santa Fe Pacific believes that Congress should face up to its responsibilities and expressly address the water rights issue. Moreover, since Congress has traditionally relied on state law for the acquisition of water rights for federal land programs for over 100 years, we see no reason to create a new body of federal reserved water rights for these wilderness and park areas unless state law does not provide an adequate means for acquiring the necessary water.

The California Supreme Court has held that the United States is entitled to the same riparian water rights in surface streams on federally reserved lands as any other landowner in California. State Water Res. Control Bd. v. United States, 44 Cal. 3d 448, 749 P2d 324 (1988). Consequently, the United States' lands involved here should have a very secure water right for any of the wilderness or park areas which may have surface streams on them. Similarly, the United States should be entitled to the same right to make reasonable use of the water in the groundwater basins underlying the California Desert as any other overlying landowner, such as Santa Fe Pacific. Under these circumstances, we see no need for a federal reservation of water of any kind, particularly since many of the springs and water holes on the unreserved public lands in the California Desert were reserved by executive order of April 17, 1926. Consequently, we propose that Congress simply add a section to the bill providing as follows:

> Nothing in this Act is intended or shall be construed to reserve any unappropriated surface or underground water on, adjacent to or under the lands designated herein for wilderness or parks for use on such lands, nor to affect in any way the withdrawals of springs and water holes made pursuant to the executive order of April 17, 1926.

Mr. Chairman, that concludes my testimony. I will be pleased to attempt to answer any questions the subcommittee may have.

SANTA FE PACIFIC CORPORATION

LANDS OWNED BY ITS AFFILIATE, SANTA FE PACIFIC REALTY CORPORATION,

WHICH ARE PROPOSED FOR WILDERNESS OR PARK ADDITIONS

IN S.11

Attachment A

SANTA FE PACIFIC CORPORATION
LANDS OWNED BY ITS AFFILIATE, SANTA FE PACIFIC REALTY CORPORATION, WHICH ARE PROPOSED FOR WILDERNESS OR PARK ADDITIONS IN S.11

WSA NAME	WSA #	BLM Recommendation Acreage	S.11 Acreage
Black Mountains	CDCA-186C	0	7,040
Newberry Mountains	CDCA-206	5,760 fee	5,760 fee
Rodman Mountains	CDCA-207	3,840 fee	8,320 fee
Morongo	CDCA-218	0	10,240 fee
Soda Mountains	CDCA-242	0	3,840
Kelso Dunes	CDCA-250	4,240 fee 640 minerals	48,080 fee 640 minerals
Cady Mountains	CDCA-251	0	28,160 fee
Bristol/Granite Mts	CDCA-256	1,760 fee 2,120 minerals	19,040 fee 11,080 minerals
Marble Mountains	CDCA-259	0	18,560 fee
Clipper Mountains	CDCA-260	0	14,720 fee
South Providence Mts	CDCA-262	2,280 fee	2,280 fee
Providence Mountains	CDCA-263	1,600 fee	1,600 fee
Fort Piute	CDCA-267	640 fee	640 fee
Wood Mountains	CDCA-271	0	16,640 fee
Signal Hills	CDCA-272	0	8,800 fee
Dead Mountains	CDCA-275	0	13,120 fee
Piute Mountains	CDCA-288	0	7,360 fee
Essex	CDCA-288A	0	5,120 fee
Bigelow Cholla Garden	CDCA-290	0	3,840 fee
Stepladder Mountains	CDCA-294	0	2,080 fee
Old Woman Mountains	CDCA-299	0	20,320 fee
Cleghorn Lakes	CDCA-304	0	5,600 fee
Sheep Hole\Cadiz	CDCA-305	0	25,920 fee
Cadiz Dunes	CDCA-305A	0	5,760 fee
Chemehuevi Mountains	CDCA-310	21,120 fee	21,120 fee
Mecca Hills	CDCA-343	1,280 minerals	3,840 minerals
Orocopia Mountains	CDCA-344	11,520 minerals	1,280 fee 19,840 minerals
Chuckwalla Mountains	CDCA-348	0	2,560 fee
Chuckwalla Unit #2	CDCA-348A	0	960 fee
Indian Pass	CDCA-355	0	640 fee
SUB-TOTAL		41,240 fee 15,560 minerals	309,400 fee 35,400 minerals

Attachment A

SANTA FE PACIFIC CORPORATION

LANDS OWNED BY ITS AFFILIATE, SANTA FE PACIFIC REALTY CORPORATION, WHICH ARE PROPOSED FOR WILDERNESS OR PARK ADDITIONS IN S.11

PROPOSED NATIONAL PARKS

	S.11 Acreage
Joshua Tree	14,080 fee
East Mojave (in addition to WSA's within proposed park bounary)	58,880 fee 640 minerals

S.11 fee acreage	382,360
S.11 mineral acreage	36,040

Grand total of Santa Fe Pacific Realty Corporation lands which must be acquired under wilderness and park proposals in S.11	**418,400 acres**

DISCLAIMER:

Acreage numbers are approximate because of the scale and accuracy of the maps which have been provided to Santa Fe Pacific.

SANTA FE PACIFIC REALTY CORPORATION LAND

IN THE CALIFORNIA DESERT

WHICH BLM HAS IDENTIFIED FOR ACQUISITION

TO FURTHER IMPLEMENTATION

OF THE CALIFORNIA DESERT PLAN

Attachment B

October 13, 1987

BLM-General

Wes Chambers
Bureau of Land Management
California Desert District
1695 Spruce Street
Riverside, CA 92507

Dear Wes:

Thank you for your recent list of Southern Pacific lands that BLM would like to acquire within the District. We have reviewed the list and have the following comments:

Barstow Resource Area

8 North - 3 East	Sections 25 and 29: We show no ownership.
7 North - 3 East	Sections 16, 17 and 29: We show no ownership, although your people may have meant to include our Sections 9 and 21.
11 North - 2 West	Section 7: We show no ownership, although we do own Section 9.
6 North - 3 East and 4 East:	No specific sections were stated. We own approximately 5 Sections in each Township.
8 North - 5 East	Section 9, 13, 16 and 17: We show no ownership although we do own Sections 25, 29 and 33.
Ridgecrest Resource Area	We are unable to identify the referenced right-of-way parcels along Highway 395, and request additional descriptions, if available.
Needles Resource Area	We note that no specific sections were mentioned. If BLM wants less than the full townships, please specify sections.
11 North - 14 East 12 North -14 East	We show no ownership in these townships.

12 North - 19 East

12 North - 21 East

11 North - 22 East

12 North - 22 East

11 North - 23 East

12 North - 23 East

5 North - 25 East

We hope to hear from you soon.

Very truly yours,

W. D. Craig
Regional Manager
Property Sales

WDC/mm
0579M

bc: D. W. Robb - Brea
Chris Montana - Brea

October 12, 19[illegible]

FILE COPY

BLM-General

Chris Montana
Duncan Robb

The BLM Desert District office has compiled a priority list (see attached) organized by Resource Area, of all lands it would like to acquire within the District. Total acreage exceeds 127,000 acres.

In addition to these lands, the Federal Government is also interested in the following San Bernardino Meridian properties:

BLM Yuma District Office

11 South - 22 East

Sections 7, 17, 19, 31

12 South - 22 East

Section 7

U. S. Forest Service -San Bernardino

1 South - 1 West

Sections 21, 23, 25

1 South - 1 East

Sections 23, 25, 27, 29

1 South - 2 East

Sections 33, 35

1 North - 2 East

Section 35

1 North -3 East

Section 3

2 North - 3 East

Section 33

/s/

Bill Craig

WDC/mm
0675M

[illegible]

According to priority

High Priority

Afton Canyon ACEC Natural Area

Township	Range	Section
11 North	6 East	7, 15, 17, 19, 21, 23
11 North	5 East	13
Newberry Mountains		
8 North	2 East	1, 5, 9, 13, 17, 21, 25, 29, 33
8 North	3 East	5, 17, 21, 29, 13, 25, 33
7 North	3 East	1, 5, 13, 16, 17, 25, 29, 33
Other		
11 North	1 West	5
11 North	2 West	1, 5, 7, 13, 17, 21, 25
1 South	3 East	7, 17, 19, 29
Moderate		
6 North	2 East	1, 13, 25
6 North	3 East	
6 North	4 East	
Low		
8 North	5 East	1, 5, 9, 13, 16, 17
8 North	4 East	1, 13
7 North	1 West	5
1 South	3 East	11, 13

Ridgecrest Resource Area

Southern Pacific Lands which we desire to acquire:

Township	Range	Section
32 South	35 East	23 MDM
30 South	38 East	(Remaining Parcels) MDM
29 South	40 East	(Remaining Parcels) MDM

Also interested in acquiring interest in right-of-way for their abandoned line along Highway 395 north of Ridgecrest.

Southern Pacific Lands that [illegible]
(by priority - according to map #15)

First Priority - East Mojave National Scenic Area

Township	Range	Section
11/12 North	14 East	
11/12 North	15 East	
11/12 North	16 East	
11/12 North	17 East	
11/12 North	18 East	
11/12 North	19 East	
11/12 North	20 East	
11/12 North	21 East	
11/12 North	22 East	
11/12 North	23 East	

Second Priority - Chemehuevi Mtn. Proposed Wilderness

5 North	21 East
5 North	22 East
5 North	23 East
5 North	24 East
5 North	25 East

Third Priority - Partially within E. Mojave NSA & Contain
High Recreational Values

7 North	13 East
7 North	14 East
8 North	13 East
8 North	14 East
8 North	15 East
9 North	13 East
9 North	14 East
9 North	15 East
9 North	16 East

Indio Resource Area

Southern Pacific Lands which the BLM would like to acquire:

Salt Creek Wash ACEC
Township 8 South, Range 11 East, NE 1/4 Sec 15
NE 1/4 Sec 21

El Centro Resource Area

The BLM wishes to acquire the Southern Pacific Lands in the vicinity of Mammoth Wash and Vinagra Wash as shown on Southern Pacific Outlying Lands map #17:

Township	Range	Section
12 South	16 East	3, 5, 9, 11, 13, 15, 17

Senator **Bumpers**. Thank you, Mr Byers.

Mr. Fisher.

STATEMENT OF DAVID FISHER, CALIFORNIA CATTLEMEN'S ASSOCIATION

Mr. **Fisher**. Thank you, Mr. Chairman.

My name is Dave Fisher and I am here on behalf of the National Cattlemen, California Cattlemen, California Wool Growers and the High Desert Cattlemen's Association.

I guess one could feel after hearing testimony here today that, in a way, S. 11 is kind of commending our industry in the California desert of utilizing a renewable resource. When you consider the criteria that it takes for a wilderness status or National Park status to be considered, our uses went on out there for a 120-plus years. If we have such a pristine condition, and I feel that we do, for it to be considered for such a use as that, then it should be obvious that our use has not impaired those values.

Our livestock graze on a lot of federal lands. Our livestock also graze on a lot of private lands, such as Mr. Byers has just mentioned. We own a lot of private land, the ranchers themselves. In the east Mojave Desert, we have a couple of ranch families that are five-generation ranch families. I have sat here and heard today and it hurts us a little bit, but we understand when agency people take, I guess, a little wind out of ourselves, claiming their enhancement of wildlife.

My people have been in that country for over 125 years. We have utilized this renewable resource, converting it into food and fiber to help feed this nation. We have raised our families. Their families have raised their families. And now we have such an erroneous thing as this proposed legislation confronting our industry. I would feel, Mr. Chairman, that some steps should be taken to start showing our people from the federal level a little incentive. It is very hard anymore to get our young people to stay on the ranches, for just such acts as this.

I attended the H.R. 780 meeting in July in a building somewhere in this city, I do not remember just—the Rayburn Building, I am sure you are familiar with it. You have to bear with me; this is my second trip to the capital of this nation. And I stood in that Rayburn Building and I saw on one wall, the forefathers, or some of them, of this great nation. I saw on another wall a bunch of pictures of the American Indian, beautiful scenic country, as we still have a lot of; I saw a culture that no longer exits. And I will tell you with all due respect, Mr. Chairman, our industry does not wish to hang on the walls in the great halls of this nation's capital.

When you talk about federal lands, keep in mind the checkerboard pattern that has been spelled out to you. Also I am sure you are very much aware that federal land is tax exempt to a private citizen, until that federal land becomes beneficial to his operation, such as grazing. Therefore, Mr. Chairman, we pay our ranching communities possessory interest tax to our county on every bit of federal land we run on. We not only pay grazing to the state lands, pay grazing to Southern Pacific Railroad, and obviously, to the Bureau of Land Management.

Stewardship—they talk about stewardship. They talk about endangered species. There are 16 ranches, range land operations, in the California desert. And again we have been there for 125 years. The area that we graze on is still pristine enough to be considered to go into a national park. We are endangered, but I think we are also darn good stewards. Credit for water—I kind of hit on that.

You have heard a lot of talk about guzzlers. They are a wonderful thing; they are much needed. But keep in mind, 90 percent of them are ephemeral, not perennial. The rancher owns a perennial right. You have heard testimony here today that, in the rancher developing the water source, he tramples and disturbs, or whatever, archeological sites. Keep in mind that our waters are appropriated from the State of California through the Water Appropriations Board. They have environmentalists, archaeologists that come to the site and review all the findings before we can make a development.

We are following the guidelines. I have heard compromise. We compromised in the mid-70s when the California Desert plan come along. We lost 1,800—or 18,000 AUMs in the California desert to that plan. For talk about big horn sheep, the most viable big horn sheep populations today are in the graze areas of the California desert. Now, just because they put in some game guzzlers a couple of years ago, I will grant you it is wonderful, but that has not turned the big horn around. It has been our management practices.

To sum it up, sir, the California desert is not a land of lakes and streams. It is a land of seeps, windmills and somebody has to maintain them. As far as the perennial water sources, 90 percent of the ranchers own those. Even on federal lands we own the water. We have Section 4 permits under the Taylor Grazing Act to give us the right to have our improvement on federal land.

So I think it is quite obvious, and I have really enjoyed your patience here today. And I—our industry would fully encourage you to go down a little different road and come to our country, and see first hand, or delegate someone to do that. And I do not envy you, your position here.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Fisher follows:]

CALIFORNIA CATTLEMEN'S ASSOCIATION

[illegible]
PRESIDENT
[illegible]

LESS GUTHRIE
FIRST VICE PRESIDENT
PORTERVILLE

BILL BRANDENBERG
FEEDER COUNCIL CHAIRMAN
CALEXICO

JOHN W. ROSS
EXECUTIVE VICE PRESIDENT

GEORGE SCOVEL
TREASURER
GILROY

1221 H STREET
SACRAMENTO, CALIFORNIA
ZIP CODE 95814-1910
(916) 444-0845

VICE PRESIDENTS

[illegible]
SALINAS

WM. B. "[illegible]" [illegible]
LOS OLIVOS

MICHAEL J. "[illegible]" BYRNE
TULELAKE

LLOYD RODUNER
FEEDER COUNCIL VICE CHAIRMAN
CHOWCHILLA

California Cattlemen's Association

to the

Subcommittee on Public Lands, National Parks and Forests

Committee on Energy and Natural Resources

United States Senate

regarding S. 11

cited as the

"California Desert Protection Act of 1989"

by **Dave Fisher**

October 2, 1989

The California Cattlemen's Association, on whose behalf this statement is presented, represents over 3,000 commercial beef cattle ranching and feeding operations in California. Our members own over sixty percent of the cattle in California, and operate on over 30 million acres within the state.

The California Cattlemen's Association is opposed to S. 11 as it is presently drafted. This legislation will harm all of the beef cattle ranchers operating on the California desert, and is unlikely to achieve the goals publicly claimed by proponents of the bill.

There are over 200 ranching families with operations in the California desert, harvesting renewable resources. Continuity of their operations and their livelihood depends upon respect for and careful management of the desert resources. One testament to their success is that many of the operations have been in the same family for decades (some even for a century) -- surviving through some very adverse times for the beef cattle industry.

A stronger testament to their success, and to their commitment to careful stewardship of desert resources, is a 1987 report on grazing condition by the Bureau of Land Management. This report showed that, of the 3.4 million acres of land suitable for grazing in the California desert, 1.9 million are in good condition (the highest classification), 1.4 million acres in fair condition and less than 1,000 acres in poor condition. This is all the more remarkable considering that a range in "good" condition is near its theoretical optimal state; even without human or livestock influence, rangeland often does not achieve this potential.

We are often frustrated that the contributions of these ranchers is overshadowed by a campaign of rhetoric and mis-information by some who either oppose livestock grazing on principle or are motivated by a desire to impose vegetarianism on other people. However, the ranchers contributions are very significant and are not likely to be replaced if S. 11 is approved.

These contributions include water development, which directly benefits wildlife as well as livestock. Literally hundreds of thousands and perhaps millions of acres of land are now available for wildlife only because ranchers developed and distributed water primarily for livestock to drink. Many of the water sites thus developed by ranchers have been adapted to ensure easier use by wildlife.

Our water development work is often under-estimated by proponents of S. 11 and opponents of livestock grazing -- but few of them have ever had to maintain as much as thirty miles of half-inch pipeline, dig out springs to assure that the water can come to the surface or repair a windmill damaged by vandals (or worse, replace a windmill destroyed by violent eco-terrorist groups). Maintaining the water for a hundred square mile area is expensive and time-consuming, but also is an integral part of a successful desert cattle ranching operation.

Ranchers often serve as another set of eyes and ears for the agencies charged with management of the desert. Ranchers are on the desert nearly full time, and work with the agencies on problems that they see as they work their cattle or maintain their ranch. That is not to say that relations with the agencies are always positive, but ranchers do recognize a mutual interest in protecting the resources of the desert. We want to preserve the desert, too, but in a way that allows for multiple uses of the diverse resources of the desert.

Grazing is a management tool to control fires (which are a problem even on the desert). In fact, grazing is one of the few natural tools for fire control available to the agencies. A well-managed grazing program can significantly minimize fire danger, while also protecting rare plants and wildlife.

Livestock are compatible with and even complementary to the rare and endangered species of the desert. For example, the desert tortoise was at its highest population when sheep grazing was a dominant use of the desert. The number of domestic sheep grazed on the desert has declined far more rapidly than has the population of desert tortoises (sheep numbers have dropped from 300,000 head to under 90,000 head; tortoises declined from over 750,000 to about 500,000 now).

In fact, activities of ranchers, in water development and grazing management, allowed many rare and endangered species to live. Were it not for the ranchers, these species may have been overwhelmed by loss of habitat and urban encroachment far sooner. After decades of preserving these species in the natural course of our business, and with a good record of protection, we are now challenged by many who wish to "save" these species -- we have been saving them for decades at our own expense and on our own private, as well as federal, property!

That we hold private property in the desert comes as a surprise to some; however, the desert is not a single block of contiguous federal lands. Rather, it is a checkerboard of intermixed private, state and federal lands. In fact, about one million acres of the nearly 8 million acres impacted in some way by S. 11 is owned by private individuals.

Rancher's holdings are special in and of themselves, as they are often based upon ownership of the water right, earned by developing the water for livestock and wildlife use. These property rights have a significant value above and beyond the value of the land alone -- they are the heart of a successful desert ranching operation (and the heart of maintaining a diversity of wildlife on the desert).

Ranchers have significant financial investments in the California desert -- over $ 5 million in direct range improvements (including water sites and fences) on the federal and state lands alone. On top of that, the investment in their private lands would be jeopardized by the loss of grazing on all or part of their BLM allotments -- amounting to tens of millions of dollars.

In fact, we are already seeing the impact of debate over S. 11 on how agricultural lenders value desert ranching operations and operating lines of credit. Lenders are getting more restrictive, even with operations that cash flow, simply because of the uncertainty created by this legislation.

S. 11 offers no compensation for the loss of value and future earnings potential for those who rely upon the desert for their livelihood. Although a clear precedent was established with the Redwood National Park, where displaced timber workers were compensated and provided relocation and retraining assistance, supporters of S. 11 have not given equal consideration to the similar impact upon California desert ranchers.

However, we are not asking for compensation -- we just want to continue ranching in the area we love and where we expect to live our lives. And we want to live in an environment where we have an opportunity to interact with the decision-makers, where we can be a part of the process, rather than seeing our lives ruled by decisions made hundreds or thousands of miles away!

We are also frustrated at the abrogation of the California Desert Conservation Area planning process -- a process that ensured a broad range of public input and consideration of every interest in the desert. We have been disappointed from time to time with how our use of the desert has fared under recommendations of the Desert Conservation Advisory Committee, but we do wholeheartedly support the process. Every interest has an opportunity to be heard, unlike with S. 11, where a few self-appointed "protectors of the desert" pass judgment over who shall use the desert and how it shall be used.

Finally, we object to the fact that no field hearings have been scheduled in California to obtain input from the people most directly affected. S. 11 and H.R. 780, as they are now written will have a significant impact on the lives and livelihoods of tens of thousands of Californians -- and the Congress will not hear of their concerns unless they are afforded an opportunity to testify at field hearings. We urge the subcommittee to delay any action on S. 11 until such time as field hearings can be scheduled.

Again, the California Cattlemen's Association officially is completely opposed to S. 11. We urge the subcommittee, if a decision is made on the bill, to oppose this rapacious land grab.

HIGH DESERT
CATTLEMENS ASSOCIATION

DAVE FISHER (619) 252-1360
H.D.C.A. President
P. O. Box 1837
Barstow, CA 92311

HOWARD BLAIR (619) 326-2920
H.D.C.A. Vice President
P.O. Box 8
Essex, CA 92332

CLAUDIA BLAIR (619) 326-2920
H.D.C.A. Exec. Vice President
P.O. Box 8
Essex, CA 92332

ANN MITCHELL (619) 253-2359
H.D.C.A. Secretary-Treasurer
32322 Hinkley Road
Barstow, CA 92311

Statement for the

High Desert Cattlemen's Association

to the

Subcommittee on Public Lands, National Parks and Forests

Committee on Energy and Natural Resources

United States Senate

regarding S. 11

cited as the

"California Desert Protection Act of 1989"

by Dave Fisher

October 2, 1989

The High Desert Cattlemen's Association is a branch of the California Cattlemen's Association and the National Cattlemen's Association. The **majority of the HDCA members graze cattle** on both private and federal lands in the California Desert region.

The High Desert Cattlemens Association appreciates this opportunity to comment on this proposed legislation that will change the status of vast amounts of public lands in the California desert. This Act will directly affect the livlihoods of the ranchers, the future of desert ranching and the local economy. The High Desert Cattlemens Association strongly opposes the Desert Protection Act.

Cattle ranching in the California Desert is a way of life and a proud heritage for 200 ranchers, workers and their families. Livestock grazing began in this area in the 1860's where they were grazed on unclaimed lands. Ranchers would obtain title to the water rights from the State which would enable them to use the area in a three mile radius. Through the ownership of water rights and private property, the Taylor Grazing Act gives a rancher the right to graze cattle on public Lands. These grazing rights are owned and can be purchased only from the present rancher or inherited. On January 25th, when Senator Cranston presented S.11 (companion Bill to HR.780) to the Senate, he stated: "The 10 cattle ranching operations in the East Mojave are not a major contribution to the economy of the State or even the local area." Each of these operations is of major importance to the ranchers who have spent their lifetime and, literally, their blood, sweat and tears developing and maintaining their ranches.

HR.780, Grazing Rights Section 410 states, "The Secretary shall permit those persons holding currently valid grazing permits within the boundary of the park to continue to exercise such permits consistent with other applicable law. Provided however, that upon expiration of the current term of such permits, the permits shall not be renewed." According to the Public Land Policy and Management Act of 1976 (Public Law 94-579, Title IV, Sec. 402) the length of a Taylor Grazing permit shall be for a term of ten years. Several ranchers have borrowed money against the number of AUM's that their ranch can carry. They have borrowed this money in good faith. If they only have 2 or 3 years left in their permit, it may be impossible for them to repay the loan.

You may have been told that the ranchers in the proposed Wilderness areas would be able to continue their ranching operations. Indeed, the Wilderness Act of 1964 (Public Law 88-577, Sec. 4) states, "the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture." But, in addition, Section 4 also prohibits permanent and temporary roads, the use of vehicles or motorized equipment and permits no structures within a Wilderness area. This means that a rancher would not

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be able to maintain his water developments, have corral facilities, place salt and manage his operation in an efficient and profitable manner. Consequently, this would put about 20 ranching operations located in the proposed Wilderness and National Park areas out of business.

A rancher spends about 75% of his time developing and maintaining water for his livestock. A ranch may have 35 to 50 watering sites. These may be springs, wells with windmills, pumpjacks or submersible pumps, miles of pipleline from the spring or well, or water may be hauled to a site. Wildlife benefit tremendously from these extensive water developments in the arid desert. It has even enabled the introduction and viability of non-native species such as deer, chukar, and wild horses and burros. In areas such as Death Valley and Joshua Tree National Monuments where grazing and subsequently water developments have been eliminated, Bighorn Sheep herds have sadly dwindled. Conversely, the first Bighorn Sheep hunt was conducted last year in an area (Old Dad Mountains) where livestock graze on public lands.

Livestock grazing reduces the danger of fire in a vast area that is largely roadless and would be virtually impossible to extinguish a fire. Fires started by lightening are frequent occurrences in the desert during the hot summers. Due to changes in the "let it burn" policy following the Yellowstone fire, this should be an important point to consider.

The 10 year renewable permit system encourages a rancher to be a good steward of the grazing land to assure future years of productivity. Ranching on Federal lands has been a historical use for 125 years and some of these ranches have been in the family for four or five generations. Ranchers utilize a renewable forage resource and are stewards of the land that they use. The amount of private land used for grazing is rapidly declining. California is now over 50% owned by local, state or federal agencies and the numbers of livestock grazed on these lands are being reduced. Decreasing the numbers of animals grazing on Federal lands, too, will eventually force the United States to import more foreign beef. Wise use of our own natural resources will maintain the strength of our nation's Agriculture industry. The economic importance of the livestock industry to the West is significant. The livestock industry in the 13 western states represents 2.4 million head of cattle and 5.8 million sheep. In 1987, cash receipts from cattle and calves in these states totaled $9.2 billion, and receipts from sheep and lambs totaled $339.1 million. According to the Public Lands Council, 20% of the calves going to the feedlot and 50% of the marketable lambs come from the public lands states and graze on federal lands at least part of the year.

In conclusion, livestock grazing has proven to be compatible with the other multiple uses of the California Desert Conservation Area managed by the Bureau of Land Management. Camping, hunting, mining and other recreations occur in the same area, as well as utility and transportation corridors and aircraft military maneuvers. Ranchers have historically utilized a renewable forage resource and are stewards of the land that they use. Over $32 million and thirteen years have already been spent on the preparation of the current California Desert Plan managed by the Bureau of Land Management. $3 million would be required to repay livestock operators for their investments. (Refer to Executive Order 12630 of March 15, 1988.) $2.5 million in public range improvement investments would be lost. Why spend millions of dollars more implementing a new plan that will eliminate so many beneficial uses of our land owned by all Americans and contributing to our country's wealth?

Senator Bumpers. Thank you, very much.

Mr. Ashburn.

STATEMENT OF ROY ASHBURN, SUPERVISOR, KERN COUNTY, FIRST DISTRICT, BAKERSFIELD, CA

Mr. Ashburn. Good afternoon, Senator Bumpers.

I also want to thank you for your attention and your patience in hearing from all of us today.

Obviously, S. 11 relates to a huge land area of California and its impact is as varied and significant as the vastness of the acreage which is involved. Each area of land and each individual impact needs to be carefully considered. This is the way that good legislation is drafted. And this is the way that sound land use decisions are made. Regretfully, however, this bill is neither sound nor carefully drafted. It is an insult and a breach of faith to the people of California who participated in the planning process which Congress mandated for the desert area.

As an elected member of the current county board of supervisors, I represent many of the people who will be affected by S. 11. A significant portion of Kern County lies within the area covered by this bill. Our county's desert includes Edwards Air Force Base, the China Lake Naval Weapon Center, the U.S. Borax Mining operations at Boron and significant mining, grazing and recreation sites. S. 11 is not simply about acreage or sand and gravel. For my constituents, it is a measure about families, homes, jobs and wildlife. And that is why I am here today asking why S. 11 is even being considered.

The Federal Land Policy and Management Act of 1976 was a mandate by Congress that the desert be carefully managed. FLPMA required the development of a management plan for these desert lands, and this exists in the form of the California Desert Conservation Plan. This desert plan was not easily produced, rather, it is the product of a 10 year process, which involved intensive research, dozens of public hearings, more than 40,000 public comments and a cost of eight million tax dollars.

What is wrong with the California Desert Conservation Plan? Where or how is that plan or process flawed? The truth is that both the plan and the process are sound. To develop the California Desert Plan, compromise, consensus and concession occurred by thoughtful people acting in good faith. No one person or interest got everything they wanted in this process, but most recognized that it was fair. Regretfully, there are some who do not want to play fair, but rather, they, like the spoiled child, have to take home all the marbles. And it is for those few bad sports that we are here today.

For them the measure of a good public lands bill is not quality but quantity. They want to count acres and not accuracy. In carrying out my duties as a county supervisor, I am involved in land use planning and regulation. And land use decisions come from careful planning which produces general plans and site-specific zoning. Always, there are hearings and studies and compromise and concession. That is the way in which I do my job as an elected representative, and I am certain that is the way in which you want to do yours: with fairness and in good faith.

S. 11, however, says to those good citizens, who thoughtfully and fairly participated in developing the California Desert Plan, do not have faith in the process that Congress provided for the management of the California desert. For if S. 11 passes, it means that Congress cares more for special interest than the public interest. And that good faith is only a slogan. Now there are many specific impacts on the area of California which I represent, which have been mentioned here today, including the impacts on our military at China Lake, at Edwards Air Force Base, George Air Force Base in Fort Irwin. We have talked about the impacts on grazing operations, and I will have to say something for the sheep men and women of Kern County, because a significant amount of sheep grazing occurs by sheep operations located within my county. And the loss of a recreational experience for our estimated 15 million visitors each year who come to the desert area.

I think it is highly improbable that all new discoveries or technological advances for mankind have been achieved and I think that we ought to be very careful in taking away the opportunity to explore minerals. That, for today, we may not have a known use, but in the near future we may have that need. Clearly this bill is seriously flawed and cannot withstand the test of good legislation. But I have to ask again, why it is even being considered.

The California Desert Conservation Plan already in place is a highly workable compromise plan which provides for protection of the environment; which sets aside areas of critical, environmental concern; provides for multiple use; and most importantly, is the product of a very public process. There is consensus on the California Desert Conservation Plan. There is anything but agreement on S. 11, even among California's senators and House delegation. S. 11 is here again because a very few did not get all that they wanted. Please keep in mind, however, that the desert plan is the compromise between desert users and preservationists, and does represent consensus. I would ask this subcommittee to stop this bill based on the principles of openness and fairness. And in so doing you can be assured that California's desert will be well-protected and that you have acted in good faith, just as those citizens who participated in this development of the California Desert Plan had faith in you.

Thank you.

[The prepared statement of Mr. Ashburn follows:]

ROY ASHBURN
KERN COUNTY SUPERVISOR
FIRST DISTRICT

KERN COUNTY CIVIC CENTER
1415 TRUXTUN AVENUE
BAKERSFIELD, CA 93301
(805) 861-2171

[illegible] JEFFERSON STREET
DELANO, CA 93215
(805) 725-8560

400 NORTH CHINA LAKE BOULEVARD
RIDGECREST, CA 93555
(619) 375-1564

6329 LAKE ISABELLA BOULEVARD
POST OFFICE BOX 3073
LAKE ISABELLA, CA 93240
(619) 379-4693

TOLL FREE 1-800-221-3628

TESTIMONY OF

SUPERVISOR ROY ASHBURN

SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS

OCTOBER 2, 1989

I want to thank the members of the Subcommittee for this Hearing and for the opportunity to present testimony regarding S.11, the California Desert Preservation Act.

S.11 is excessive and unnecessary and I ask for your help in sending this desert buzzard to an early grave. This legislation relates to a huge land area of California and its impacts are as varied and significant as the vastness of the acreage involved. Each area of land and each individual impact needs to be carefully considered. This is the way that good legislation is drafted and this is the way that sound land use decisions are made. Regretfully, this Bill is neither sound nor carefully drafted. Moreover, S.11 is an insult and a breach of faith to the people of California who participated in the planning process which Congress mandated for the desert area.

As an elected member of the Kern County Board of Supervisors, I represent many of the people who will be affected by S.11. A significant portion of Kern County lies within the area covered by this Bill. Our County's desert area includes: Edwards Air Force Base, the China Lake Naval Weapons Center, the U. S. Borax mining operations at Boron and significant mining, grazing and recreation sites. S.11 is not simply about acreage or "sand and gravel". For my constituents, it is a measure about families, homes, jobs and wildlife.

That is why I am here today asking why S.11 is even being considered.

The Federal Land Policy and Management Act of 1976 (FLPMA) was a mandate by Congress that the desert be carefully managed. FLPMA required the development of a management plan for these desert lands and this exists in the form of the California Desert Conservation Plan.

This Desert Plan was not easily produced. Rather, it is the product of a ten year process which involved intensive research, dozens of public hearings, more than 40,000 public comments and a cost of $8 million tax dollars.

What is wrong with the California Desert Conservation Plan? Where or how is that plan or process flawed?

The truth is that both the plan and process are sound. To develop the Desert Plan compromise, concession and consensus took place by thoughtful people acting in good faith. No one person or interest got everything they wanted in this process, but most recognize that it was fair. Regretfully, there are some who don't play fair, but rather they are like the spoiled child who has to take home all the marbles. It is for those few "bad sports" that we are here today. For them, the measure of a good public lands bill is not quality, but quantity. They want to count acres, not accuracy.

In carrying out my duties as a County Supervisor, I am involved in land use planning and regulation. Land use decisions come from careful planning which produces General Plans and site specific zoning. Always, there are hearings and studies and compromise and concession. That's the way I do my job as an elected representative and I am certain that is the way in which you want to do yours -- with fairness and in good faith.

S.11, however, says to those good citizens who thoughtfully and fairly participated in developing the California Desert Plan, "Don't have faith in the process that Congress provided for the management of the California Desert." For if S.11 passes, it means that Congress cares more for the special interests than the public interests and that "good faith" is only a slogan.

Please allow time for the California Desert Conservation Plan to work. And if the Congress is serious about protecting the public lands in California, stop starving the Bureau of Land Management by allowing sufficient funds for the agency to do its job.

S.11 will designate nearly 5/6 of the available public lands in the Southern California Desert as wilderness or preservation areas. This Bill was conceived in a vacuum and is being nurtured by blind commitment to the concept of "preservation".

Without the benefit of study or input from people who live and work in the desert, the authors of this bill have chosen to disregard present and future uses of the desert and in so doing will leave a wake of devastating repercussions to mining, recreation, and the military, in addition to harming conservation efforts to protect wildlife.

For example, S.11 designates new wilderness along substantial amounts of the eastern boundaries of the China Lake Naval Weapons Center and Fort Irwin Military Reservations. This is an area which is currently part of the military's restricted air complex and through which all Southern California and Nevada military bases conduct low level flight operations for training and for testing of navigation and guidance systems which are being developed for our strategic aircraft and weaponry. Existing and pending overflight restrictions and wording in the Bill which limits these Department of Defense research, development, testing evaluation and training laboratories to existing levels of operation will clearly impede the ability of the Naval Weapons Center, Edwards Air Force Base and Fort Irwin to perform at maximum levels. Restricting our military laboratories from development of new technologies impedes national security capabilities.

The Bill negatively impacts long-standing grazing operations. It is anticipated that nearly 55% of grazing would be eliminated as leases expire. In addition, ranching inholders within wilderness areas would eventually be forced to cease operation for lack of access. Not only would these people experience substantial economic losses, but the wildlife which also depends on the farmers' and ranchers' importation of water and improved food supplies would also suffer.

It is impossible to estimate the loss of recreational opportunities for millions of current users who engage in activities other than isolated wilderness experiences. The desert hosts nearly 15 million visitors each year who come to hike, hunt, rockhound, camp, wind sail, bicycle, ride, sightsee and explore the wonders of the desert. S.11 will close 2,235 miles of key access routes within the national parks and wilderness areas eliminating all but the young and fit from reaching favorite recreation areas.

Further, access constraints and other statutory restrictions on activities allowed within Wilderness and current management policy for Parks will severely restrict the ability of wildlife resource managers and other conservation groups from constructing or maintaining the hundreds of artificial water supplies called "guzzlers" which collect, store and dispense water to insure the survival of sensitive wildlife species. Many species of wildlife are dependent on these water reserves. For example, these projects have been credited with assisting the Big Horn Sheep herd grow from a population of 25 to over 300 in the past six years.

It is highly improbable that all new discoveries and technological advances for mankind have been achieved, yet S.11 will lock out the potential for developing new oil, mineral, or geothermal reserves in an area which is regarded as one of the world's richest untapped depositories of natural resources and an area which already is supplying over 100% of the nation's borates, 97% of domestic rare earths, 15% of the talc, 10% of the crude gypsum and 6% of metallic minerals. 65 known mineral commodities to date have been found in the desert, 27 of which are considered strategic or critical to our nation's needs. It is costly and time-consuming to develop new reserves. A good example is the new Coso geothermal facility, which by January 1990 will be producing over 230 megawatts of power or enough energy to satisfy the needs of a city of 230,000 people. Although the steam reserves were suspected, it took over eight years and a cost of over 175 million dollars to prove the potential of this geothermal reserve. No one can anticipate what our future needs may be nor can we afford to seal off these resources by placing them in wilderness or national parks.

Clearly, S.11 is seriously flawed and cannot withstand the test of good legislation. But I have to ask again, why is this bill even being considered?

The California Desert Conservation Plan, which is already in place, is a highly workable compromise plan which provides for protection of the environment, which sets aside areas of critical environmental concern, provides for multiple-use, and most importantly, is the product of a very public process.

There is consensus on the Desert Conservation Plan. There is anything but agreement on S.11, even among California's Senators and House delegation. S.11 is here again because a very few didn't get all they wanted. Please keep in mind, however, that the Desert Conservation Plan is the compromise between desert users and preservationists and represents consensus.

I would ask this Subcommittee to stop S.11 based upon the principles of openness and fairness. In doing so, you can be assured that California's desert will be well protected and you will have acted in good faith just as those citizens who gave of themselves to produce the California Desert Plan had faith in you.

Senator **Bumpers**. Thank you very much, Mr. Ashburn.

Mr. Fisher, are you personally a livestock farmer, cattleman?

Mr. **Fisher**. Yes, sir. That is my sole livelihood.

Senator **Bumpers**. Do you farm private land and federal land or both?

Mr. **Fisher**. I farm no land sir. I run beef cattle—mother cows year-round produce cows. And I run on federal land and private land.

Senator **Bumpers**. How many acres?

Mr. **Fisher**. Well, we have around the neighborhood of 200,000 acres, our operation covers. We are one of the medium-sized ranches in the California Desert.

Senator **Bumpers**. What is an AUM there?

Mr. **Fisher**. Animal Unit Month.

Senator **Bumpers**. And, how many acres does it take to sustain one animal?

Mr. **Fisher**. It is varied. Our country, as you heard from some of the geologists folks, varies in soil types. The Bureau of Land Management during the Ford evaluation studies in the mid-70s rated ours at 36. But we have tremendous—you know, a lot of ephemeral-type forage in good wet years. Our perennial base is the only thing that that allocation is based on—the 36 acres.

Senator **Bumpers**. How much of the 200,000 acres is private and how much of it is federal?

Mr. **Fisher**. In our operation, about 60 percent of our ranch is federal land. Now keep in mind that is a checkerboard pattern. So now some folks would assume that why do you not just break off 60 percent. It is checkerboarded.

Senator **Bumpers**. And how long have you had a BLM permit to graze that roughly 140,000 acres or whatever it is?

Mr. **Fisher**. Well, this particular ranch has been grazed since about—well, it has been grazed way since before the turn of the century. I think the first time BLM actually permitted it would have been in the late 1930s to early 1940s.

Senator **Bumpers**. Has your family had the permits during all of that time to farm?

Mr. **Fisher**. No, sir. They have not.

Senator **Bumpers**. How old are your permits?

Mr. **Fisher**. Okay. My permits are like 20 years old on this ranch. I was born and raised in that country. But I have only had permits in my name for about 20 years.

Senator **Bumpers**. And have you owned this land, the remaining 40 percent, about the same period of time or longer than that?

Mr. **Fisher**. Part of it has been owned by the ranch, but there have been holdings acquired over the past forty years.

Senator **Bumpers**. How many members of your family are involved with you?

Mr. **Fisher**. My wife, my son and myself.

Senator **Bumpers**. Just the three of you?

Mr. **Fisher**. Three, my wife, son and myself.

Senator **Bumpers**. And how many, how many employees do you have?

Mr. **Fisher**. Two full-time, four part-time.

Senator **Bumpers**. And how many cattle do you have?

Mr. **Fisher**. Right now, I have about 500 head of mother cows.

Senator **Bumpers**. 500 mother cows on 200,000 acres?

Mr. **Fisher**. Yes, sir. We really concentrate on distribution. We are, like I said, we are not a land of lakes and streams. It is little seeps and windmills. Our cattle nine months out of the year will be like anywhere from three to 10 in a group, and they are disbursed throughout that range. We do concentrate our cattle in the spring to brand cows. And as I will do when I return from here in the fall, to gather and wean those cows.

Senator **Bumpers**. That is an incredible thing to me. I am a former cattleman myself.

Mr. **Fisher**. Pay me a visit.

Senator **Bumpers**. I may do that. How do you feed? Pretty well?

Mr. **Fisher**. Sorry?

Senator **Bumpers**. Do you feed well? Is your wife a good cook?

Mr. **Fisher**. She is a darn good cook. I mean that seriously. If you could get out there, we would appreciate it. We are doing something wrong, show it to us.

Senator **Bumpers**. I have a really deep sensitivity to your obvious strong feelings about this, Mr. Fisher. But let me ask you this question.

You have had those permits for 20 years, and so far as I am concerned you can have them for the next 200, you and your son and his descendants. And S. 11 states essentially that very same thing.

Mr. **Fisher**. No, sir. I disagree with you.

Senator **Bumpers**. Well, grazing rights are not impaired under the bill.

Mr. **Fisher**. Oh yes, sir.

Senator **Bumpers**. How are they impaired?

Mr. **Fisher**. Well, see that is a tremendously erroneous assumption. I heard earlier today, you ask a statement when Senator Cranston was still with us, that could grazing not continue in a wilderness area. Where the misconception lays there, Mr. Chairman, again, we are a land of windmills and springs. If we cannot maintain those waters, our wildlife, our livestock, everything in the area that depends upon those waters will perish. So we cannot continue to maintain a man-made improvement within the boundaries of wilderness.

So please understand this. This is one of—I think if you could just understand that one little precious point of S. 11, you could understand a lot of what is taking place in issues such as this.

Senator **Bumpers**. You would have to get permission from BLM now to do any maintenance work, construction around those springs?

Mr. **Fisher**. After June we do. Or was it—I think it was July. They have had a certain date set down in the California Desert Plan, something to do with this wilderness issue, that anything after a certain date that impaired the value of that wilderness, could no more go on in there. So now where we have a water that we own the water with this Section 4 permit, yes, sir, we do have to get permission right now to go into those areas.

Senator **Bumpers**. How do you think that S. 11 would impair that, if you have to do that now?

Mr. **Fisher**. Well, see now that is the point that I would like for you to understand. If—these are WSAs now. They are wilderness study areas. We have 80 some odd of them within this S. 11 proposal. They are wilderness study areas. They are not designated wilderness. If those should be signed by Congress as being wilderness, then they will come under all criteria of wilderness. That is when we can no longer go in there, not even with the permission of BLM. If we have a windmill in there or a fence line in there for livestock management purposes, it has to be removed.

That has been what has been explained to our people. And as far as the East Mojave national scenic area going into a park, that would eliminate 10 viable ranching operations. No permit. When they are—see these—under the Taylor Grazing Act established in 1934, we have, like when it is a perennial, a preference grazing permit, that right is attached to base property.

See, it is not some dandy little thing that they just say, here we will let you have you this for while you pay for it. The only way you can have that is to have it attached to base property. You understand? Okay, now, there are a 10-year renewable. So what S. 11 proposes in the park area, which would be the currently East Mojave national scenic area, is that when that man's permit comes up for renewal, they will not renew it.

It is just like Mr. Byers hit on something.

Senator **Bumpers**. That is correct. He could not renew it.

Mr. **Fisher**. No, it is not. Okay, now would that not impair the value of his basic property that that right is attached to?

Senator **Bumpers**. Yes, it would. That is the reason we have these hearings.

Mr. **Fisher**. And we appreciate it, sir.

Senator **Bumpers**. Let me ask you. How many ranchers are there in your area?

Mr. **Fisher**. There are cattle ranchers; there are 18 of them in the California desert. Our sheep operators that run on ephemeral vegetation—there is another very misconceived thing by the American people, that the sheep lease is also 10-year renewable. But there are times, like seven, eight years in a row, that the sheep do not even go to the desert. There is nothing to go to. They have no perennial base. The only time they are there is when the vegetation is good. But you will hear these things that, you know, when the sheep are out there, they are stomping the tortoises or they are stomping this or that, or they are ruining the feed.

A sheep man does not pay transport on a band of sheep to go 200 miles and get his camp out there and there is herders out there, and there is water trucks out there. If there is not an abundance of ephemeral vegetation, he does not go.

Senator **Bumpers**. Mr. Byers, how did Santa Fe, did they acquire this land by purchase, or is this a part of the land grants prior to the turn of the century?

Mr. **Byers**. This is part of the original Southern Pacific grant and we have merged with them. And we now, through Santa Fe Pacific Realty Corporation, manage those grant lands.

Senator **Bumpers**. Those are all those checkerboard sections that were granted to build railroads and so on. Is that what it is?

Mr. **Byers**. That is correct.

Senator Bumpers. Why, if you have 134,000 acres there of high potential, and you have had that land for all these many years, why has no development occurred before now?

Mr. Byers. One of the reasons is that Santa Fe and Southern Pacific only merged in 1983. We have existed, our company——

Senator Bumpers. Who owned the land? Santa Fe owned it before that?

Mr. Byers. Southern Pacific owned it until that time. Santa Fe Pacific Minerals has really existed as a mining company since about 1976, when a management decision was made to develop a mining company. And now our company mines coal in New Mexico, industrial minerals in five states, and silver and gold in Nevada. We have taken the advice of Senator Cranston in 1976 when he introduced S. 2071 to start coming to us, look at your lands and what can we do to make some arrangements out here. And with the amount of lands in the desert, there are about 1.5 million acres that we own, you just cannot go out overnight, Mr. Chairman, and make a very honest and accurate assessment of that.

We have tried to do our best in a short amount of time, in three years. And this is what we have come up with. Senator Cranston's staff now has this map as does Chairman Vento's staff.

Senator Bumpers. Do you think it is possible to affect an exchange for that 134,000 acres?

Mr. Byers. We would like very much not to exchange the 134,000 acres that we have identified with high mineral potential that are in the park and wilderness areas. The future of Santa Fe Pacific Minerals Corporation is mining. And as you have heard before, you are talking about an area of this planet earth, which is just a very unique resource. We are lucky we have got it in the United States.

There are a wide variety of mineral commodities there. The lands I have identified in orange here, just are not gold or silver. We have tungsten, we have clays, we have borates, we have salt, we have industrial minerals, sand and gravel and aggregates.

Senator Bumpers. Does Santa Fe Mineral have any claims on federal lands?

Mr. Byers. Yes, we do, sir.

Senator Bumpers. Do you know how many acres?

Mr. Byers. No, I do not. We do have claims on federal lands in Arizona, some in California.

Senator Bumpers. Claims on these areas in between the checkerboard areas here?

Mr. Byers. I do not believe any are in this area. This map, however, does identify the fact that other companies do have claims on those intervening federal lands.

Senator Bumpers. Though oftentimes if you were going to start developing that you would have to go into a consortium with somebody else. Would you not? In other words, it might not be economical just on your land. You would have to get some other lands with it?

Mr. Byers. That is correct. But on the other hand, another company, which would have staked land, federal land adjoining ours, would come to us. And that is what placing those high potential lands in wilderness or park is going to do to us. It is going to make possible for us to lease them to others. It will make it impossible down the road for us to lease them to Mr. Fisher, for him and his colleagues to graze them. It will just take that revenue out of our company, long-term revenue.

Senator **Bumpers**. Gentlemen, thank you again, for your testimony, and for coming. We may very well submit some questions in writing to some of the members of the panel. And we would hope and be grateful if you would promptly respond to any questions that are submitted to you by the subcommittee.

I thank all of you again for your work and your travel for being here with us today. We stand in recess subject to the call of the chair.

[Whereupon, at 5:50 p.m., the subcommittee adjourned.]

[Due to the voluminous nature of the materials submitted, additional documents and statements have been retained in subcommittee files.]

APPENDIXES

APPENDIX I

Responses to Additional Questions

Committee note.—Responses to the following questions sent to the Bureau of Land Management had not been received by the Subcommittee at the time of the printing of the hearing. When the responses are received, they will be retained in Subcommittee files.

SENATOR DALE BUMPERS
QUESTIONS FOR ADMINISTRATION REGARDING S. 11

The Desert Plan

o My understanding is that the Desert plan was completed in 1980, with the exception of the final wilderness recommendations; is that correct?

What is the status of those wilderness recommendations?

The Department testified before this Subcommittee in July of 1987 that the wilderness recommendations would be complete by 1989. Now that 1989 is drawing to a close, do you believe that the Department will release its final recommendations this year?

o I would like to clarify my understanding of how lands are managed when they receive the "Class C" and "Class L" designation under the Desert Plan. These designations recognize and protect more environmentally sensitive lands -- do they not?

o Is off-road vehicle use allowed in these lands?

o Are off-road vehicle races ever allowed in these lands?

o How many acres of these lands are formally designated "closed" to ORV use?

o Is mineral exploration allowed in these lands? Seismic exploration? Exploratory drilling? Surface excavation?

o Are new mining operations allowed even if the mining claims are established post-FLPMA? What types of surface disturbances are allowed on post-FLPMA claims?

Mining Activity

o Could you explain which minerals are now being mined in the California Desert? Approximately what percentage of total U.S. mineral production comes from the Desert? Approximately what percentage of total U.S. mineral usage comes from minerals that come from the Desert?

o There are those who seem to suggest that most of the mineral potential of the California Desert has already been tapped. How would you respond to that suggestion?

o What precautions do you take so that mining activities will not cause irrevocable harm to the Desert ecosystem? Please detail the reclamation actions you take.

o Are you allowing new mining claims to be established in wilderness study areas?

Off-Highway Vehicle Use

o How many miles of unpaved, maintained roads are there in the California Desert? How many miles of unpaved, unmaintained routes are there in the Desert? Do you allow off-highway vehicle use on unmaintained routes of travel? Do you allow off-highway vehicle use off of designated routes of travel?

o What type of off-highway vehicle use is allowed in the wilderness study areas? Do you allow any races to cross wilderness study areas?

Desert Tortoise

o In the opinion of BLM biologists, have desert tortoise populations declined significantly over the last few years?

If so, how has the BLM responded to such declines?

o I understand that the U.S. Fish and Wildlife Service announced that it was requesting an emergency endangered listing for the desert tortoise.

What is the current status of that request, and what has BLM done to respond to the request?

o Does the Barstow to Vegas motorcycle race cross desert tortoise habitat?

If so, wouldn't allowing thousands of motorcyclists to cross desert tortoise habitat put you at cross purposes with the Fish and Wildlife Service's efforts to protect the desert tortoise?

o Is it true that a significant proportion of the tortoise population has been lost to gunshot? If so, what steps is the BLM taking to address this problem?

Mojave National Park - qualifications as park

o The Administration has argued in the past that the East Mojave does not deserve "park" status since it has numerous structures, such as power lines, railroads, etc., which are incompatible with a National Park designation. Are there other units of the National Park System which have such structures?

Malcolm Wallop

Senator Malcolm Wallop

Questions for the Bureau of Land Management, Department of the Interior:

1. What are the purposes for which water rights are or may be necessary, if any?

2. Are those purposes primary or secondary based on the rationale of U.S. v. New Mexico?

3. If Congress were to be silent on the issue of reserved water rights, what rights do you anticipate the federal government to assert?

4. What quantification would be asserted for each such right?

5. What are the current water rights which could be affected by a federal reservation?

6. To what extent do any of the purposes included in your answer to questions 1 or 3 coincide with California's Public Trust Doctrine?

7. If a federal reserved water right is for a purpose contemplated by the Public Trust, would such a right, once perfected pursuant to State law, be deemed to be a superior right under State law notwithstanding its junior priority date with respect to other rights?

8. List all otherwise senior rights which could be affected if a court were to determine that the answer to question 7 is affirmative.

9. Would consumptive uses for visitor purposes fall within California's Public Trust Doctrine?

10. Would the federal government be required to compensate any senior water right holders if their rights were affected or eliminated by a federal reserved water right which falls within the Public Trust?

11. To what extent would any assertion of a reserved right affect the ability to effect an upstream exchange?

12. To what extent would any assertion of a reserved right affect the ability of an upstream water right holder to alter his use to the extent otherwise permitted under State law absent the reserved right?

13. Please review all the questions and answers submitted subsequent to last year's hearing on S. 7. Please detail any changes you may have relevant to the provisions in S. 11.

14. If S. 11 were to pass in its current form, California would have 15.2 million acres of wilderness, almost twice the present level, and second only to Alaska in amount of wilderness. If so, explain in detail the possible disadvantages of taking land out of multiple use management.

15. What part will the recent emergency listing of the desert tortoise have on this "carefully achieved balance"?

16. There are about 700,000 acres of inholdings which would be created by S. 11. The bill envisions exchanging these inholders out rather than outright purchase. Does the tortoise listing impact this proposal?

17. Senator Cranston recent requested from GAO a west-wide study of wildlife management under the BLM and the Forest Service and a few months ago asked GAO to restrict their first installment of that study to BLM and only in the California Desert. Has BLM responded to the allegations in that report? If so, please supply a copy of your response.

18. I understand at the last hearing, questions were raised about the existence and classification of strategic and critical minerals in the California Desert. Are the existence and classifications of these minerals known? Are there any studies in progress to identify these resources?

19. Are all roads properly identified? In your opinion, what roads still need to be identified?

20. How much private land and State trust land is included within the boundaries of S. 11's proposed parks and wilderness areas?

21. Do you propose that this land remain in private and state ownership?

    a. If so, how would it be managed as park or wilderness?

    b. If private land or State trust land remains in park or wilderness areas, will it pose management problems for the federal land manager?

    c. If you propose that the private and State lands be removed from the proposed park and wilderness areas, how would the federal government acquire this much land?

22. What would be the cost of acquiring the private inholdings by direct purchase?

23. How much of this land could be acquired by exchange? Have you discussed this matter with the private landowners or the State?

24. As a practical matter, does the BLM in California have enough land classified for disposal to accommodate in acre-for-acre exchange which S. 11 would require?

25. What would be the administrative costs of such land exchanges?

26. How does the federal government propose to pay for these exchanges or to compensate the landowners? What is the time frame in which payment or other compensation (e.g., exchange) will be accomplished?

27. It is National Park Service policy to acquire lands in fee before adding them to a unit of the National Park System. How do you propose to evaluate and acquire approximately 10,000 mining claims and some 200,000 acres of private and State lands in the proposed East Mojave National Park?

28. The Park Service is finding it is difficult to acquire relatively tiny tracts of private lands with no known mineral resources to add to newly-created areas such as the El Malpais National Monument in New Mexico. Do you believe acquisition of vastly more mineral-rich land in the California Desert will be accomplished without similar -- or greater -- delay?

29. Assuming that private lands will remain in these park and wilderness areas, how will the rights of these landowners to have access to and develop their property be protected?

30. An article in the July 1989 issue of the "Golden State Report" indicates that there is a desperate need to reconstruct the aging infrastructure of Southern California, especially that in the Los angeles basin and in the core city area of Los Angeles. By restricting mineral development on so much land under the proposals in H.R. 780, where will such mineral as cement, building stone, aggregate, gypsum, clay, and sand and gravel be found for this redevelopment?

31. Will S. 11 permit future mineral exploration and development in the California Desert?

32. Will the legislation proposed have any impact upon the

mining industry? Will any lands with potential for mineral development be closed to access and development?

33. Santa Fe Pacific owns some 420,000 acres in proposed new wilderness or park areas in the California Desert. The state of California owns over 100,000 additional acres. S. 11 seems to assume that these lands can be acquired by exchange. Does BLM in California have enough suitable acreage for acre-for-acre exchanges with both Santa Fe Pacific and the State? If not, how does NPS propose to acquire these lands?

34. If suitable lands are not available in California to exchange on an acre-for-acre basis with Santa Fe Pacific, would alternatives such as an interstate exchange be acceptable alternatives? Would you support an amendment to FLMPA to permit such exchanges?

35. Santa Fe Pacific claims that much of its land which is recommended for wilderness or park in S. 11 has high mineral potential. Did the BLM reach that same conclusion when it performed its inventory of these lands?

Committee note.—Responses to the following questions sent to the Department of Defense had not been received by the Subcommittee at the time of the printing of the hearing. When the responses are received, they will be retained in Subcommittee files.

Senator Malcolm Wallop

Questions to Robert A. Stone, Deputy Assistant Secretary of Defense

There are five military areas within the California Desert. Please describe in detail the impact to your current and future operations provisions of this legislation will have on your facilities and programs.

Please provide the Committee with detailed maps showing current or future low-level airspace routes over wilderness or proposed park areas delineated in this legislation.

Public land withdrawal Chocolate Mountain Aerial Gunnery Range:

What is the requirement for this withdrawal?

If you have been using the range since World War II, is a fifteen-year withdrawal appropriate?

Do you support the closure of the Range to the public, as provided for in the bill?

What about mining activities?

Could the range be reduced in size?

General Wilderness

Are there any general concerns on the Wilderness and National Park designations in this bill?

Are there other considerations?

California Desert Conservation Area plan

If the military cannot support the bill's proposals for wilderness and parks, what alternatives could you support?

Does the plan provide for all envisioned military requirements?

Low-level overflight

The bill contains language to the effect that the military may continue overflights in the same locations and intensity. Is this provision adequate?

To the extent that there is presently no law specifically banning the overflight of wilderness, why is it necessary to address it at this time?

Recognizing the requirement to train at low levels, why is the California Desert so important to you for this activity?

If you were to be provided with a legislative presence, what checks would be available to prevent its abuse?

Mr. Stone, in your statement you talk about the training you conduct in the desert. Could you give the Committee some examples of the scope of this training?

You state that the desert provides for some of the best testing and training available, which would not have been available if Congress had locked DOD into 15-year old methods. What wouldn't have been available?

You state that DOD is deeply concerned about what happens in the desert. Why? What is the impact of limiting the use of areas outside those currently used by Defense?

We understand that the U.S. Fish and Wildlife Service intends to list the Desert Tortoise as a federally "endangered" species. How will that impact your efforts?

Would you provide the Committee some more details on the Base Closure Commission's concern about future training in the desert?

What did the Base Closure Commission recommend with regard to expanded training areas in the desert?

You say that withdrawals of 15 years are too short. Why?

Mr. Stone, do you agree with the Department of the Interior that, if this were enacted, there would be a potential loss of minerals which are critical to the security of the nation?

Does DOD have any information on future Defense requirements for these materials?

Committee note.—Responses to the following questions sent to Robert Reveles had not been received by the Subcommittee at the time of the printing of the hearing. When the responses are received, they will be retained in Subcommittee files.

QUESTIONS SUBMITTED TO ROBERT REVELES,

CALIFORNIA MINING ASSOCIATION, REGARDING S.11

o My understanding is that there are four main commodities for which the nation is dependent on the Desert at this time: borates, rare earths, soda ash, and sodium sulfate. Is that correct?

If so, how much of the existing production of these commodities occurs within the boundaries of the areas put in wilderness or parks in this bill?

o Great concern has been expressed about the availability of rare earths supplies to help investigations of superconducting technologies. Are rare earths used in all of the recent most promising superconductor technologies?

o Mr. Reveles, in your testimony you state: "S. 11 could result in the long-term loss of about 17,000 jobs in the desert area, and over 20,000 throughout Southern California." Upon what do you base these statistics?

Over what period of time would those jobs be lost?

How many active mines would close as a result of S. 11?

RESPONSES TO QUESTIONS SUBMITTED TO JAMES DUFFUS, III, DIRECTOR FOR NATURAL RESOURCES MANAGEMENT ISSUES, GENERAL ACCOUNTING OFFICE

In response to our report entitled California Desert: Planned Wildlife Protection and Enhancement Objectives Not Achieved (GAO/RCED-89-171), Senator Wallop has asked a number of questions that together suggest his concerns over the report's tone and completeness. The detailed answers to those questions are attached. In summary, we continue to hold the view that the Bureau of Land Management (BLM) has not done an effective job protecting the interests of wildlife in the California Desert Conservation Area (CDCA).

Question 1: **The recent GAO report regarding wildlife in the California Desert was very critical of BLM management. Yet The Nature Conservancy, one of the country's premier conservation groups, has worked extensively with BLM in California on many cooperative wildlife projects. If BLM management is as bad as you allege in that report, why do The Nature Conservancy and other groups support their efforts?**

GAO Response: We do not believe that decisions by conservation groups to conduct habitat preservation operations on BLM lands should be interpreted as support for BLM's management efforts. These groups have their own goals and objectives and in the case of the California Desert they have concluded that protecting shrinking wildlife habitat and populations in that area demands their attention. These groups have, in fact, assumed a leadership role in this endeavor. To this end, many officials, both within BLM and the conservation organizations, told us that most successful wildlife enhancement and protection projects in the California Desert were the result of other organizations, either acting independently or pressing a reluctant BLM to take necessary actions.

Question 2: The BLM must also work closely with the State Department of Fish and Game. Again, if the management is as inadequate as GAO states, why is it that Fish and Game has been praising BLM for its wildlife efforts?

GAO Response: California Fish and Game Department officials that we interviewed during our review were not complimentary of BLM's management efforts in the CDCA. To the contrary, these officials expressed considerable displeasure with BLM's performance. These views were frequently shared by BLM field office staff members.

Question 3:	Did you talk to these outside groups in your study? If you did, what was their response, and why weren't these responses included in the report?
GAO Response:	As the report states on page 13, we discussed federal wildlife policies and practices in the CDCA with "a variety of BLM, state of California, and interest groups' representatives." As the report further states, these contacts included "California Department of Fish and Game officials; and officials of various interest groups including the Sierra Club, Defenders of Wildlife, Desert Tortoise Preserve Committee, Bighorn Institute, Desert Protective Council, Inc., and the California Desert Coalition (an umbrella organization representing numerous desert user groups including off-highway vehicle recreationists, miners, and livestock grazers).

The views of these officials are cited in a number of places in the report. For example, on page 19 the report states that "corrective action, such as increasing ranger patrols to reduce off-highway vehicle misuse and vandalism, has been delayed for so long that BLM and California Fish and Game Department biologists believe it may not be effective." On page 25 the report states "BLM biologists and officials of other agencies and conservation groups pointed out that protecting

wildlife habitat may often be in direct conflict with other land uses. As one official of the California Department of Fish and Game told us, "There are times when the needs of wildlife have to be considered first and you can't compromise with other uses, but BLM seems unwilling to do that." Other references to the views of these groups are included in the report.

Question 4: **Your report focused on the number of Habitat Management Plans and criticized BLM for completing about half of the target it set out for itself in the 1980 Desert Plan. Are HMPs the sole measure of wildlife management progress? Isn't wildlife considered in other plans in the Desert, including environmental impact statements, where mitigation measures are required, and other resource plans?**

Why did you limit your focus to completion of Habitat Management Plans and obviously ignore these other factors?

GAO Response: The report did not focus exclusively on habitat management plans as suggested by the question. As discussed in the report's Objectives, Scope, and Methodology section, the report responded to two questions raised by Senator Cranston, namely

-- "whether the congressional mandate to protect wildlife as one of the land's multiple uses is appropriately considered in the agencies' planning processes and

-- what impact current federal policies and practices are having on the overall condition of wildlife on public lands."

As such, BLM's wildlife planning efforts were necessarily an integral element of our review. However, our review of BLM's planning efforts were not restricted to the preparation and implementation of habitat management plans. Area of Critical Environmental Concern plans were also reviewed in depth. We focused heavily on these two types of plans because BLM's overall CDCA plan states that these plans are the primary mechanism for achieving wildlife objectives in the CDCA. Further, to ensure that our review was carried out as fairly as possible, we asked BLM staff to identify the specific plans that we should examine to obtain a representative view of BLM's wildlife planning performance. We included each of the plans BLM identified in our review scope.

In addition to examining these wildlife-related plans, we also reviewed many nonwildlife planning documents. As stated on page 14 of the report we "reviewed a number of plans dealing with BLM's management of grazing, mining, and recreation in the CDCA." We listed each of these resource plans on page 31 of the report. It is based on this comprehensive view of both wildlife and nonwildlife plans and implementing activities that we reached our conclusion about the inadequacies in BLM's performance.

Question 5: I can't seem to find anywhere in your report your recognition that the BLM does have dedicated,

professional wildlife biologists who are carrying out wildlife management responsibilities in the California Desert. Would you care to make a statement in this regard?

GAO Response: Our report on the California Desert does recognize the extraordinary efforts and dedication of many BLM wildlife biologists. On page 17 we cite "hard work by BLM staff at the project level" as one of the primary reasons why successful plan implementation had occurred. This statement parallels language in an earlier report[1] on BLM's poor institutional performance in restoring degraded riparian areas. In that report we stated that, "Many successful projects, in fact, resulted directly from a staff person's willingness to show special initiative, ingenuity, diplomacy, and perseverance, and to give many hours beyond the normal workweek."

Based on our extensive work with BLM wildlife and fisheries biologists both in the California Desert and elsewhere, we believe these highly dedicated staff members often need more support from their own agency. In the report on riparian area management cited earlier we pointed out that many BLM staff members believed agency management does not support them in implementing decisions opposed by grazing interests and that this lack of support was affecting the pace of riparian area restoration. Further, in our review of BLM's management of the California Desert we found that BLM has a track record of disregarding biologists' basic

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[1] Public Rangelands: Some Riparian Areas Restored but Widespread Improvement Will Be Slow (GAO/RCED-88-105, June 30, 1988).

recommendations to protect dwindling desert tortoise populations.

Question 6: **In your report and your testimony, you take BLM to task for opposing the state-listing of the tortoise. My information is that they actually only asked for postponement to allow a number of positive initiatives to progress. In fact, why didn't you note that BLM recommended geographic listing for the tortoise to the State in 1988?**

GAO Response: Our report discusses BLM's recommendations with respect to state listing of the desert tortoise as an endangered species fully and fairly. Page 27 of the report states as follows:

"In a recommendation to BLM's California State Director dated January 20, 1989, the BLM California Desert District Manager stated that he concurred with the State Director's suggestion to neither support nor object to the listing. He also commented that he found the supporting documentation for the listing to be generally sound. However, less than 2 weeks later on February 1, 1989, the BLM State Director informed the California Fish and Game Commission that he would prefer that their listing action be tabled for 2 to 4 years until new BLM initiatives to enhance desert tortoise populations and habitats can be evaluated. The State Director believed that by listing the tortoise at that time, the Commission would be disregarding significant future planning initiatives by BLM and other state and federal agencies to allow no further net loss in quantity or quality of important tortoise habitat on public lands. He also thought the listing might dampen support from many of the land users."

On page 28 our report states that

"Many of the state and BLM biologists and conservationists we spoke with believe that BLM's recommendation to postpone state listing of the desert tortoise appears to be little more than a tactic by BLM to appease consumptive users of the tortoise habitat whose activities could be subject to increased control if the tortoise is listed. These biologists and conservationists also believe such a delay could threaten the dwindling tortoise population in the CDCA with extinction."

Events subsequent to our report have served to vindicate the position of these officials and demonstrate the error of BLM's view that listing should be delayed. The U.S. Fish and Wildlife Service has proposed an emergency listing of the tortoise as a threatened species and the BLM California State Office has again reversed itself and apparently come to endorse this decision.

Question 7: You also failed to note that it was BLM-originated data that led to the recent emergency federal listing of the tortoise and that the BLM supported this step as necessary. Was that an oversight?

GAO Response: Our report (page 25) does state that the desert tortoise is one of only a few species in the CDCA where BLM has collected extensive monitoring data. Collecting such data is an important BLM responsibility routinely recognized in its own wildlife plans. Thanks to the commitment of several key BLM field staff, this responsibility has been fulfilled in the case of the desert tortoise. For virtually every other species, however, it has not.

At the time we prepared our report and testimony we were not aware that BLM had come to support emergency listing of the species. As discussed in the previous question, as of February 1989 BLM was not supporting state listing of the species. Six months later, the U.S. Fish and Wildlife Service recognized that desert tortoise populations in the CDCA had declined to such a dangerously low level that emergency listing under the federal endangered species program was necessary. Subsequently, BLM reversed its previous position and concluded that the tortoise was severely threatened. More recently, BLM has taken a degree of action to protect the tortoise and its habitat from several organized off-road vehicle races. Whether such actions will be enough to save the tortoise remains to be seen.

Question 8: Your report seems to take a "numbers" approach and does not really deal with the real status of wildlife in the California Desert, such as the dramatic increase in bighorn sheep numbers in the Desert, the progress being made to protect species such as the Coachella Fringe-toed lizard, and the flat-tailed horned lizard? Why were these issues not reported?

GAO Response: We disagree with the assertion made in this question. First, the progress made with the Coachella Valley fringe-toed lizard is discussed in detail on page 17 of the report as one example of successful wildlife plan implementation. It should be noted, however, that while cited as a success BLM did not initiate this effort and agreed to participate in an effort largely organized by The Nature Conservancy and the California Department of Fish and Game only after considerable delay.

Second, with respect to the flat-tailed horned lizard, we disagree with the view that BLM's efforts are resulting in extensive progress. Detailed monitoring data on the species, despite being called for in BLM's plans, is not available. Without such data, it is not possible to declare success. In fact, instead of regarding BLM efforts as successful, field biologists closely familiar with the lizard's status believe the species is doomed as a result of consumptive uses of the land sanctioned by the agency. Relatedly, the U.S. Fish and Wildlife Service has prepared documentation on the matter and plans to list the lizard under the Endangered Species Act.

Finally, we believe the conclusion that dramatic increases are occurring in California Desert bighorn sheep populations is based on highly questionable data. BLM's assertion of population increases is based on its belief that bighorn sheep populations increased from 3,000 in 1980 to 4,600 in 1989. The current population estimate is probably accurate. However, California Department of Fish and Game personnel and BLM field staff view the 1980 baseline estimate with much skepticism and believe BLM has no basis to claim any bighorn sheep population gains.

Question 9: You place the blame for the desert tortoise declines squarely on BLM's shoulders. Isn't disease and predation by ravens a contributing cause of their current problems?

GAO Response: We do not believe the assertion made in this question accurately reflects our report's discussion of the desert tortoise's decline. On page 26 of our report we state that:

> "Biologists attribute the decline in desert tortoise populations to a variety of factors, including livestock grazing, off-highway vehicle use, urban and agricultural development, transportation and energy-related corridors, disease, collection for pets, vandalism, shooting, and predation of young tortoises by ravens."

While disease and predation by ravens are undoubtedly important factors in the decline, tortoise experts we interviewed believed that several factors largely under BLM's control (namely livestock grazing and off-road vehicle use and the associated loss of critical habitat) were also heavily responsible. Accordingly, while certainly recognizing the role of other factors, we continue to believe that BLM land use decisions also bear a heavy measure of responsibility for the tortoise's decline.

Question 10: Did you take into account the public and private funds being spent to protect the desert tortoise at the present time?

GAO Response: **Information is not available to quantify the extent of expenditures aimed specifically at the desert tortoise. However, in our report we noted that because of a general budget shortfall, BLM has not had sufficient funding, staff, or inclination to perform all of the needed wildlife-related work in the CDCA.**

Question 11: **You obviously do not give BLM much credit for carrying out their wildlife management responsibilities. But isn't BLM's mission different, than say, Fish and Wildlife's or the California State Department of Fish and Game?**

GAO Response: We agree that BLM is not primarily a wildlife management agency. This notwithstanding, however, as the steward of the public lands BLM has critical responsibility for maintaining the quality of the habitat on which the health of wildlife populations ultimately depends. Under the multiple use/sustained yield mandate set forth in the Federal Land Policy and Management Act of 1976 (FLPMA), BLM is responsible for exercising balanced stewardship of the public lands under its authority for the benefit of all uses and in a fashion to ensure that the land's productive capacity is maintained in perpetuity. Despite this mandate, we have found in this report and others that when conflicts between these uses have occurred, BLM has generally placed the needs of consumptive interests over wildlife, other conservation-oriented uses, and the long-term health of the land itself. Whenever compromises have been needed it is the conservation-oriented uses that have most often been sacrificed. As we stated in our report, such an approach is an important contributor to BLM's limited progress in achieving its wildlife objectives in the CDCA.

Changing this orientation will not be easy but we see no alternative if balanced stewardship is ever to occur. As we stated in April 11, 1989, testimony before the Subcommittee on National Parks and Public Lands, House Committee on Interior and Insular Affairs,

"For substantive progress to be made, we believe there will have to be a fundamental change in the approach of the agency responsible for conducting day-to-day management of the public lands. For this to occur, BLM will have to abandon its historical identification with the interests of livestock permittees and other commercial interests. In its stead, BLM and Interior management will have to demonstrate the institutional will to effectively implement the principles of multiple-use and sustained-yield as mandated by FLPMA. Business-as-usual simply will not do if the Congress' expectations as set forth in FLPMA are to be realized."

THE WILDERNESS SOCIETY

December 20, 1989

Ms. Beth Norcross
Committee on Energy and
  Natural Resources
364 SDOB
Washington, D.C. 20510

Dear Ms. Norcross:

Enclosed are my responses to the questions related to mining and mineral resource issues connected with my testimony on October 2, 1989 dealing the effects of S. 11, the California Desert Protection Act, on the minerals industry of California. Other questions submitted, not directly related to mineral production, are still under consideration.

1. Q: My understanding is that there are four main commodities for which the nation is dependent on the Desert at this time: borates, rare earths, soda ash, and sodium sulfate. If so, how much of the existing production of these commodities occurs within the boundaries of the areas put in the wilderness or parks in this bill?

   A: Based on my analysis the four commodities listed above have all or a large proportion of their national production from the California Desert Conservation Area (CDCA). Using data provided by the Bureau of Land Management and the State of California I have found no record of any current production of these minerals anywhere within the boundaries of the parks and wilderness areas proposed under the bill.

2. Q: Great concern has been expressed about the availability of rare earths supplies to help investigation of superconducting technologies. Are rare earths used in all of the recent most promising superconductor technologies?

   A: The latest information that I have seen indicates that, among many other substances, a thallium-containing material recorded superconducting properties at the highest temperatures. Thallium is not found in rare earth deposits. Research is also underway to identify other superconducting materials that do not contain rare earths.

3. Q: Mr. Reveles, in your testimony you state: "S. 11 could result in the long-term loss of about 17,000 jobs in the desert area, and over 20,000 throughout Southern California." Upon what do you base these statistics? Over what period of time would those jobs be lost? How many active mines would close as a result of S. 11?

   A: Although this question is not directed at me, I would like to make a comment on these statistics. According to U.S. Census Department statistics, the entire nonfuels minerals industry in the state of California declined from 10,672 jobs in 1980 to 8,680 jobs in 1986, 8,854 in 1987, and 8,897 in 1988. See my answer below for an elaboration of these statistics.

1400 EYE STREET, N.W., WASHINGTON, D.C. 20005
(202) 842-3400

I do not believe that any economically viable mines would close as a result of S. 11. I base this answer on the fact that all economically viable mines have established valid existing rights and would be allowed to continue their production under S. 11, regardless of their location.

4. **Q:** Dr. Goerold, you claim, based on employment and 1986 earnings from the Bureau of Mines that the industry makes a small contribution to the economy. Can you draw the same conclusion utilizing 1987 and 1988 figures? And if so, please explain.

A: The table below shows the wage and salary employment and earnings for the mining industry in the entire state of California (excluding oil and gas jobs, apparently all of which lie outside of the CDCA).

Year	Nonfuel Minerals Wage & Salary Employment (Total jobs)	Nonfuel Minerals Percent of Total Employment	Nonfuel Minerals Industry Earnings (Thousand 1989 $)	Nonfuel Minerals Percent of Total Earnings
1978	9,008	0.096	386,735	0.105
1979	10,229	0.095	442,154	0.115
1980	10,672	0.098	414,868	0.105
1981	10,272	0.093	399,173	0.099
1982	8,704	0.080	304,872	0.075
1983	8,069	0.073	339,806	0.081
1984	8,410	0.072	357,755	0.080
1985	8,846	0.073	376,242	0.080
1986	8,680	0.070	411,822	0.083
1987	8,854	0.068	420,134	0.079
1988	8,897	0.066	400,994	0.076

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, 1989, Table SA5, Total Personal Income by Major Sources, and, 1989, Table SA27, Full-Time and Part-time Wage and Salary Employees.

Based on the figures shown above, employment and earnings for the minerals industry peaked around 1980 and have generally declined since then, both in absolute terms and relative to the rest of the California economy. These data show that total employment in mining declined from 10,672 to 8,897 in the period 1980 to 1988, a drop of 17 percent. Although there was a net increase of 217 jobs from 1986 to 1988, mining's share of total employment in California actually dropped 5 percent from 1986 to 1988 and about 33 percent from 1980 to 1988.

An analysis of the earnings figures shows a similar trend to the one cited above. Real earnings (adjusted for inflation) in the minerals industry peaked in 1979 at about $442 million. After declining to $305 million in 1982, minerals earnings recovered back to $420 in 1987. However, in 1988 minerals earnings declined to $401 million, a decrease of 3 percent from 1986 and 9 percent since 1979. Because the economy of California grew during this time period, the mineral industry's share of total earnings showed a larger decline than that shown by the dollar value of earnings. The maximum share of earnings for the minerals industry occurred in 1979, when the industry claimed 0.115 percent of total state earnings. The most current data show the industry share of earnings has declined to 0.076 percent, a drop of 34 percent since 1979.

By every measure shown above I can still say that the minerals industry in California (excluding the oil and gas industry) claims a vanishingly small fraction of state employment and earnings. Even at its peak at the beginning of this decade, the minerals industry employed less than 11,000 people out of a statewide labor force of about 11 million. Since 1980, the share of both earnings and employment in the minerals sector have declined by about one-third, a trend that continues to this day.

5. Q: Why are you not using product value and extrapolating that to show the value of end products in determining the economic contribution?

A: I am not using end product value for assessing the importance of the minerals industry for two reasons: (1) the U.S. Bureau of Mines uses the same measures for California business activity that I have, apparently because they believe that these measures illustrate the magnitude of the state's mining industry, and more importantly (2) the mining industry does not make end products. For example, if the final value of an automobile were used as a measure of the value of the copper, iron, lead, etc. that was contained in the vehicle, then it would ignore the contribution of the other inputs such as labor that were used to produce the vehicle. In addition using only the end value criteria ignores the contribution of the intermediate industries that took the minerals and fashioned them into a form that could be used by the automobile industry. The most valid measure of the importance of an industry is the value added in that sector. When using this measure, economists subtract the value of the product manufactured by the industry (e.g. copper ingots), and subtract the value of the inputs used in the assembly (e.g. mining capital equipment). Because data on the value added by the mining industry are not available, one of the closest measurements is the earnings claimed by the mining industry.

6. Q: In your testimony, you cite six "possible" examples of mines that might be affected by this legislation. Have you differentiated in your listing of these mines in California between those which are major producers and those which are very small, perhaps one-person operations or hobbyist exercises? Have you equated production of minerals with the number of mines which produce them?

A: The state of California, Department of Conservation is my source for determining that there are at most six mines within the boundaries of the new park and wilderness areas proposed by S. 11. In addition to the township and range location within the state, this source details the operating company, mine name, and product. However, when I received the list of six mines possibly within the proposed protected areas under S. 11, I reviewed other literature and attempted to contact the companies listed as operating those six mines. The data on these are listed below.

Page 4 – Responses to Senate Energy Committee

Mine Name	Commodity Produced	Percent of Total CA Mines for this commodity	Full-Time/ Intermittent Production	Wilderness/ Park Area	Operating Company	Number of Full-Time Workers (approx.)
Haiwee Quarry	Pumice	13	Full-Time(?)	possibly in Coso Range WSA	Ltwght. Process. Company	?
Colosseum Mine	Gold	3	Full-Time	Mojave Park	Bond Gold	110
PS Hart Mine	Clay	3	Unknown	Mojave Park	Viceroy Gold	1
Morningstar Mine	Gold	3	Full-Time	Mojave Park	Vanderbilt Gold	55
Twin Mountain Pit	Stone	1	Full-Time	Mojave Park	Kietwit and Sons	15
Volco Mine	Gold	3	Intermittent	Mojave Park	Unitron Corp.	?

Sources: California Department of Conservation, 1989, personal communication, and The Wilderness Society research.

I identified about 180 employees that work at mines apparently located within the boundaries of S. 11. This total represents approximately 2 percent of the 9,000 people employed statewide in mining during 1988. However, these mines apparently hold valid existing rights and there is no reason to expect that they would be closed down by the proposed legislation.

At least three of the six mines cited above are full-time operations. I have personally visited the Colosseum Mine in the northern portion of the proposed Mojave National Park, and have talked with employees at the Morningstar Mine. These two mines, together with the Volco Mine, represent about nine percent of the total of 32 active gold mines that the California Division of Mines and Geology reported in 1987. The combined output of these three mines is a very small fraction of national gold production. The Haiwee Quarry is one of eight pumice mines reported by the state of California, however it is unclear whether this mine is in the Coso Range WSA or just outside of the area. The Twin Mountain Pit is one of 80 stone and rock producers in California.

In 1987, the state of California reported that there were 806 active mines in the state (California Division of Mines and Geology, 1987, Mines and Mineral Producers Active in California During 1986). Although their individual output, production patterns, and size are not reported, most of the mines have more than one employee working at them. I have therefore assumed that most, if not all, of the mines reported in this publication are not one person or hobbyist exercises.

7. Q: Under the "valid and existing rights" language, an operator must prove that his property can produce economically at the time of the legislation's enactment. Isn't it true that if this language had been enacted ten years ago that we would not see the precious metal production which has become so important to the desert region's economy? Isn't it also true that commodities such as manganese which today are not economical to mine, but are considered strategic to our national defense, could not qualify today under this language?

A: Certainly if an area has not been explored and drilled to prove the existence of economic quantities of ore then that area could not be shown to have valuable minerals. However, I vigorously dispute the statement that if the valid existing rights language had been enacted ten years ago that we would not see the current level of precious metal activity. There are at least two reasons for disputing this statement: (1) The rapid expansion in precious metal production is occurring over most of the western United States. Significant increases in gold production are occurring throughout Nevada, California, Oregon, Washington, Arizona, Utah, South Dakota, and other states. Even within California increases in gold output have occurred over a large portion of the state, ranging from northern California, to Napa Valley, and extending through the California Desert and into Arizona and Nevada. I am convinced that because of the widespread distribution of these deposits that if valid and existing rights language was mandated ten years ago for selected areas in the California Desert that this action would have had a small impact on regional and national gold output. (2) My research has shown that 90 percent of the new gold mines in California are located at the site of old mining districts. Much of the land in these districts has been patented, and is therefore private land, as a result of the previous mining activities. In addition, the boundaries of the proposed park and wilderness areas have been drawn to minimize the inclusion of mining districts with significant historical production.

It is apparently true that manganese, a strategic material, is present in the California Desert but not in sufficient quantity or quality for economical mining activities. This commodity would apparently not qualify for protection under the valid and existing rights language. However, several Federal agencies, including the Office of Technology Assessment (OTA) and the U.S. Bureau of Mines (USBM), have studied the domestic and international availability of manganese. As noted in my testimony before the Senate Energy Committee, the OTA states "[T]he Nation should seek material wherever they may be found, at the least cost and consistent with national security and the welfare of friendly nations." (OTA, 1985, Strategic Materials: Technologies to Reduce U.S. Import Vulnerability, p, 45). This agency's analysis maintains that materials obtainable at low cost from secure foreign suppliers are preferable to domestically-mined materials acquired at many times the cost of the foreign minerals.

Manganese is stockpiled by the Federal Government, and according to the Bureau of Mines, the best sources of domestic manganese are located in Minnesota and Maine. Furthermore, the USBM states that the National Research Council noted "...[domestic land-based resources of manganese] should not be developed except in a dire emergency." (USBM, 1985, Mineral Facts and Problems, p, 486). There is also much interest in the mining of manganese nodules from the ocean floor in the recently established U.S. Exclusive Economic Zones (EEZs).

Because of all these reasons I feel that the availability for production of widely scattered occurrences of small amounts of low-grade manganese or other similarly distributed occurrences of strategic minerals in the California Desert is not an important factor in this nation's future military or economic well-being.

8. Q: You state that there is no impact on important commodities from the desert because the mines now producing them lie outside the California Desert Conservation Area (i.e. U.S. Borax and Kerr-McGee). Even though they are not operating within the desert at the current time it would be reasonable to assume that they will seek future supplies as current assets are limited. The California desert appears to be the next closest site to that region. How will those materials be produced in a cost-effective manner from "other alternative sources," considering transportation as a most important factor in the price of construction materials?

A: I stated previously that the Kerr-McGee and U.S. Borax operations lie inside the CDCA, but are far removed from proposed park and wilderness areas. The current assets of U.S. Borax and Kerr-McGee at their present sites (I assume that you mean mineral reserves) are not very limited. In the case of Kerr-McGee the production of sodium sulfate, soda ash, and borates is obtained from Searles Lake. According to the U.S. Bureau of Mines "[t]he United States has sufficient reserves of sodium carbonate and sulfate to meet its needs for centuries." (U.S. Bureau of Mines, 1985, Mineral Facts and Problems, p. 749). The brines that are currently being mined by Kerr-McGee from Searles Lake are a large proportion of current U.S. reserves of these commodities.

U.S. Borax produces borates from the Kramer deposit located in Boron, California. This deposit supplies about four-fifths of total U.S. production, including a sizeable export market. Known domestic reserves of boron, a large proportion of which are located at the Kramer mine, total about 115 million tons, representing about 180 years worth of production at the 1988 levels. As the USBM states "The United States is in a favorable position with respect to borates, particularly sodium borates. Although boron minerals are neither overly plentiful nor widely distributed worldwide, a significant part of the known reserves are located in southern California." (USBM, 1985, Mineral Facts and Problems, p. 101).

The CDCA is not the only area in Southern California from which to obtain mineral commodities. There are large areas of other private, state, and other federal land outside of the CDCA with significant mineralization. However, even if the California Desert Conservation was the only area from which construction materials could be extracted and all federal land in the CDCA was closed to mining, it is very likely that these materials would still be readily available from the state and private land within the CDCA. According to the California Division of Mines and Geology, approximately two-thirds of the 130 active mines located within the CDCA are located on non-federal land and therefore fall outside of any federal land use restrictions. The Bureau of Land Management reports that S. 11 would leave at least 9.9 million acres of private or federal land in the CDCA, apart from the limited use federal areas and military acreage, that would continue to be open to mining.

Kerr-McGee and U.S. Borax, both of which are located outside the California Desert Conservation Area and hold many years worth of reserves, are the perfect examples to show that there is significant mineral potential outside of the S. 11 boundaries. There is no evidence that reserves of these commodities, or of any of the other common construction commodities such as sand and gravel, stone, limestone, shale, and salt have limited availability outside the CDCA, or in the extensive public and private lands within the CDCA that would remain open to mining if S. 11 was enacted. Also, all reserves of these commodities that might be found inside of the new park and wilderness areas would be protected under the valid existing rights provisions of the bill.

9. Q: Mining companies, in the face of legislation such as S. 11 and with the full knowledge that the California regulatory climate is the toughest in America, continue to invest large sums in exploration and development of new mineral deposits in the California Desert. How do you reconcile this fact with your claim that no new mineral resources remain to be found in the California Desert?

A: I have never stated that no new mineral resources remain to be found in the California Desert. As a former employee of several mining firms and having education and experience in minerals exploration, I recognize that success in mineral exploration frequently occurs at the site of past failures. Furthermore, I recognize that the dynamics of changing markets, geologic exploration models, technology, and other factors all determine the economic viability of a deposit.

The factors that you have cited, i.e. mining firms continue to invest in the California Desert in spite of S. 11 and the stringent environmental controls required in California, tells me that the effect of S. 11 on mineral exploration and production will be minimal. Certainly no one can say that any specific site will or will not be found to contain valuable minerals. However, as seen by the proliferation of mineral exploration and production both outside the CDCA in southern California and on lands inside the CDCA but outside of the boundaries of S. 11, it seems clear that mining companies will continue to explore for and produce minerals by concentrating on the large areas that continue to be open to mineral exploitation, and particularly in the areas with significant historical production.

10. Q: An article in the July 1989 issue of the "Golden State Report" indicates that there is a desperate need to reconstruct the aging infrastructure of Southern California, especially that in the Los Angeles Basin and in the core city area of Los Angeles. By restricting mineral development on so much land under the proposals in H.R. 780, where will such minerals as cement, building stone, aggregate, gypsum, clay, and sand and gravel be found for this redevelopment?

A: An analysis of the data supplied by the California Division of Mines and Geology sheds some light on the pattern of production of construction materials in California (California Division of Mines and Geology, 1989, personal communication, and 1987, Mines and Mineral Producers Active in California During 1986). There are currently about 130 active mines in the CDCA. About 110 of these 130 mines produce construction materials. Fifty-seven of these construction materials operations produce sand and gravel. The remainder have production recorded at the following numbers of mines in the CDCA: stone and rock-13 mines, limestone-12 quarries, talc-3 mines, shale-2 pits, gypsum-4 mines, etc.

A maximum of 2 of the 110 mines mentioned above lie within the boundaries of S. 11. Therefore, prior to any restrictions being placed on mining activity in the CDCA by S. 11, less than two percent of the construction materials mines in the CDCA are within the proposed legislation areas. This fact demonstrates the widespread availability of the construction materials within the CDCA and outside of proposed legislation boundaries.

In addition to the 10 million acres areas within the CDCA that would continue to be open to mining, there are about 675 other mines in California outside of the CDCA, including 366 other sand and gravel pits, 19 other limestone quarries, 67 other stone and rock quarries, 8 other talc mines, and 8 other gypsum mines. That is not to say that production from any or all of these mines outside of the CDCA is close enough to Southern California markets to be economic, but it gives an indication of the abundance of these relatively common construction materials throughout the state. In addition, the above list does not include potential production of these

construction materials from nearby portions of Arizona and Nevada that share the relative abundance of these commodities.

11. **Q: Will S. 11 permit future mineral exploration and development in the California Desert? Will the legislation proposed have any impact upon the mining industry? Will any lands with potential for mineral development be closed to access and development?**

A: As mentioned in many of the previous responses, there is ample acreage within and outside of the California Desert that will remain open to mineral exploration and development. A minimum of about 10 million acres within the CDCA and vast areas in other parts of California, Arizona, and Nevada will likely continue to be open to potential mineral exploitation. There may be some effect on the minerals industry by the proposed legislation, but it is likely to be very minor. I can foresee no active mines being closed down because of the valid existing rights provisions protection mentioned above. Furthermore, there are only 6 active mines out of a statewide total of 806 that are within the proposed legislation boundaries. Despite the low number of active mines within the proposed legislation boundaries, there may be some areas that would be put off limits to mineral development by S. 11, that some mining firms would like to explore for minerals. Nevertheless, evidence suggests that there are a multitude of other areas that could be used to satisfy national and regional mineral demands while still maintaining wilderness values over an important region.

No one can ever say that any land does not contain any potential for mineral production, even if it has been explored for hundreds of years. There is always a possibility that a site with no apparent economic mineral values that has been put off limits to mineral development would later be found to have a valuable mineral deposit. However, I think the more appropriate question that should be asked is, will the economic health of the region or the nation be harmed by the exclusion of mining from the proposed park and wilderness areas? There is no specific evidence that any particular regional or national mineral supply would threatened by the passage of S. 11. I think the evidence clearly shows the wide distribution of minerals both inside and outside the California Desert. These mineral values are not confined to federal lands or to California, but they extend across all land ownership and state boundaries.

I hope these responses have answered your questions.

Sincerely,

W. Thomas Goerold
Chief Economist-
Energy and Mineral Resources

DESERT
CONSERVATION
INSTITUTE

AN EDUCATIONAL PROJECT OF THE CALIFORNIA MINING INDUSTRY
1010 Eleventh Street, Suite 213, Sacramento, California 95814 (916) 447-1977

RESPONSE AND AMPLIFICATION

To Questions Posed by Senator Dale Bumpers Following Hearing Testimony on California Desert Legislation
October 2, 1989

QUESTION:
My understanding is that there are four main commodities for which the nation is dependent on the Desert at this time: borates, rare earths, soda ash, and sodium sulfate. Is that correct?

RESPONSE:
The four commodities indicated above are very important to the nation. In addition, as referenced in the mineral summary data of the U.S. Department of the Interior Bureau of Mines and U.S. Department of the Interior Geological Survey in a report on the California Desert Protection Act of 1987 (Vol. 1, Page 8), there are many additional domestic needs met by desert mineral production.

In that report, domestic needs met by domestic mining and produced from the desert include: boron, clays, diatomite, feldspar, garnet, lithium, magnesium (dolomite), molybdenum, phosphate rock, rare earth metals, sand and gravel, sodium carbonate (and sodium sulfate), talc and pyrophylite. Desert production reflecting zero to 25 percent net import reliance includes beryllium, cement, copper, gold, lead, perlite, salt, stone (crushed) and titanium. Materials with a 26 to 50 percent net import reliance which come from the desert include: gypsum, iron ore, pumice and punicite, selenium, stone (dimension).

Other materials necessary for U.S. consumption resulting in a negative balance of trade – but produced in some quantity from the California desert include: asbestos, barite, cadmium, chromium, flourspar, nickel, platinum-group metals, potash, silver, tin, tungsten, zinc, bauxite and alumina, graphite, manganese, quartz crystal, strontium, tantalum and thallium. (Source: Adapted from U.S. Bureau of Mines, Mineral Commodity Summaries, 1987, 193 p.) (Copy of summary chart enclosed.)

QUESTION:
If so, how much of the existing production of these commodities occurs within the boundaries of the areas put in wilderness or parks in this bill?

RESPONSE:
Of the four commodities detailed in the opening question, the legislation has excluded all current operations. In the case of some of the other commodities listed by the Bureau of Mines – particularly in the case of those materials which are a by-product of other mineral extraction – many properties which may be in a temporarily-dormant state have been included within the boundaries proposed as wilderness or parks in this bill. Of critical consideration is the lack of study for mineral potential for the vast majority of the wilderness areas proposed in the legislation.

Despite geographic exclusion in terms of the bill's language, however, each of the companies responsible for production of the four commodities outlined in the first question point to negative impacts on their ability to continue producing materials, should this legislation be adopted:

Borates.
U.S. Borax has repeatedly informed House and Senate decision makers that on the basis of current demand, only about 40 years of reserves remain from its major operation at Boron, currently the source for more than 50 percent of the world's production. Borates are found in only a few areas of the world, with the Mojave Desert a prime area of potential. Deposits are buried and hidden and can only be found by intensive exploration using drill rigs. Aggressive exploration has confirmed major borate deposits in Death Valley -- where National Park Service mandates have prohibited mining -- and specifically in the Ryan area on the eastern border of the National Monument, an area proposed by this bill as wilderness.

The almost universal need for boron (it is found in everything from fiberglass to fertilizers to eyedrops) promises no decline in demand, while new uses are predicted to increase demand and potentially shorten the 40-year life of the Boron mine. For example, an announcement this fall heralds a new borate-based wood preservative

to stop wood-boring insects and decay fungi without the use of toxic materials. (The Environmental Protection Agency lists 55 toxic waste sites on its national priority list as polluted with wood preservatives -- and the number is growing. The EPA banned sales of these preservatives to consumers in 1986).

Rare Earths.
In fact, rare earths or lanthanides (as they are more correctly known) are 14 naturally occurring elements: lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium plus yttrium. Some are very abundant at Molycorp's Mountain Pass mine, some are very rare. Current production at Mountain Pass is not included in wilderness or park proposals. However, the proposed boundaries for the East Mojave National Park are less than 1-1/2 miles from the mine site and cut across the southern claim block of the company's ore reserves.

The very history of Mountain Pass underscores the fallacy of predicting materials needs based upon today's knowledge or technology. Only a fraction of the potential for the deposit was recognized upon its discovery in 1949. Today, Mountain Pass is both a domestic and international source of lanthanide materials and a new use for any one of the 14 elements could greatly increase the mining rate, reduce the mine life and create an acute need for more extensive exploration and development of nearby properties which under this legislation would be in national park and wilderness.

Of great concern to Molycorp is the potential for findings of impacts from air quality, the concept of degradation of scenic vistas and noise generation which may be found in the future to impact adjoining wilderness/national park acreage, resulting in operational restrictions. The likelihood of such pressures are reflected in recent publication of the national membership magazine of one of the bill's primary sponsors which strongly criticizes Mountain Pass and other East Mojave mine sites on the basis of that criteria -- with no recognition of the extraordinary mitigation efforts of mine sites operating in the desert.

Soda ash (sodium carbonate) and salt cake (sodium sulfate).
Fortunately, the expansive reserve of these commodities found at Kerr-McGee's Searles Lake property promises a good availability of these materials vital to glass making and soaps/detergents -- if the company can continue to operate under its existing and already stringent regulatory framework. Kerr-McGee's desert production accounts for 10 percent of the domestic supply of soda ash and 60 percent of the natural sodium sulfate, despite the marketing/competitive handicap posed by the

high level of state and desert region mitigation requirements and regulations.

Based on arguments from the bill's proponents which criticize legitimate and environmentally-sensitive mining operations as referenced above, impacts on Kerr-McGee from air quality, scenic and noise quality levels have a great potential to make operation impossible. Similarly, the abutting wilderness acreages would preclude the company's future needs for location of water supplies as well as pipeline and other conveyance systems, and other future operational alterations.

In addition, Kerr-McGee points to impacts from the legislation on its limestone deposit in the Panamint Valley which is vital to operation of its co-generation facility – which provides power to Southern California Edison in addition to acting as a back-up steam source for company operations. Though excluded from the most recent rendition of the legislation, blasting and removal activities at this high-quality limestone deposit will be virtually impossible by virtue of the close, surrounding proximity of wilderness.

QUESTION:
Great concern has been expressed about the availability of rare earths supplies to help investigations of superconducting technologies. Are rare earths used in all of the recent most promising superconductor technologies?

RESPONSE:
Indeed, rare earths (lanthanides) are the basis for the most promising of superconductor technologies. Some critics, attempting to minimize the vital importance of the desert's lanthanide reserves and production, have erroneously referred to a thallium-bismouth-copper oxide material as most promising for superconductor use. While that material is being studied, it should be realized that thallium is extremely rare and is very toxic. One of its main uses is in rat poison. Lanthanides are particularly necessary for superconductor applications. According to Dr. Barry T. Kilbourn, Coordinator of Technical Development at Molycorp, "usage where a magnetic field is essential, i.e., any large scale use in imaging or energy storage, will need the yttrium ... or lanthanum ... compounds."

Judging the merits of future rare earth (lanthanide) production solely on the basis of superconductor technology is tremendously limiting. While referencing the importance of the lanthanides to the future of the superconductor, Karl Gschneidner, Distinguished Professor in Sciences and Humanities and Senior Metallurgist, Director of the Rare-Earth Information Center, Ames Laboratory, Iowa State University cautions in a letter to Dr. Louis Ianniello, Deputy Associate Director for Basic En-

ergy Sciences, Department of Energy, that he sees other pressing needs for lanthanides in the near future. He cites two other developments using lanthanides: 1) heavy fluoride optical fibers and 2) aqueous corrosion inhibitors and corrosion resistant coatings, which he feels will have even a greater impact than superconductors. (Copy of letter enclosed).

QUESTION:
Mr. Reveles, in your testimony you state: "S. 11 could result in the long-term loss of about 17,000 jobs in the desert area, and over 20,000 throughout Southern California." Upon what do you base these statistics?

RESPONSE:
These statistics reflect an economic analysis by an independent academician. The information was acquired by economist Shirley Anderson, Ph.D. It was secured in confidence directly from producing companies in the desert. It reflects specific documentation from those companies at risk. No other economic assessment of this legislation uses data collected directly from affected mining companies. That data was additionally analyzed by a respected academic input-output analysis based on a recognized regional economic model to definitively illustrate the ripple effect of basic industry production on other sectors of the regional economy.
(Copy included.)

QUESTION:
Over what period of time would those jobs be lost?

RESPONSE:
As detailed by Dr. Anderson, without exploration, less than a 30-year life is expected on about 60 percent of current mining reserves. Most remaining desert mines will be depleted over 50 years. As this bill would severely curtail or eliminate exploration opportunities for future ore reserves for current mineral producers, Dr. Anderson extrapolates a two percent annual rate of mine shutdowns. That scenario is a conservative generalization and does not take into account the rapid growth in demand and production of some of the desert minerals. In some commodities, cement for example, shutdowns would occur at a faster rate because increasing demand is depleting available supplies.

QUESTION:
How many active mines would close as a result of S. 11?

RESPONSE:
This question underscores the very heart of the controversy surrounding this legislation. There has been no definitive study made of existing or future mineral production within most of the areas included in this legislation. Both impact of production, and viable mining potential must be considered. For example, more than 400 mines are listed in a rough compilation of the California Division of Mines as "exploration," "active," or "idle" mineral properties in the desert region, yet fewer than 100 mines account for more than 90 percent of the industrial/hardrock mineral production in California.

-- Characterizations made by the bill's proponents assume a static, defined reserve. Even a cursory knowledge of mining practices shows that assumption to be faulty. Mining property begins development with the expectation of expansion as production provides capital and market incentive to do so. Initial development commonly is targeted at reserves capable of underwriting start-up costs, with long-term expansion predicated on increased demand or market conditions.

-- Examples of some of the mines projected to be closed by this legislation are the Colosseum, a showcase of environmental excellence and employer for about 150 people which is included in the proposed East Mojave National Park, as is Vanderbilt's Morningstar Mine and at least two other exploration/production facilities. The Keystone Mine, a small producer with fewer than 15 people employed, is included in a wilderness area. Numerous advanced exploration and small operations are affected, as are several providing road base supplies for the California Department of Transportation and interstate freeway maintenance. There may be 31 facilities facing immediate effects -- and perhaps a much greater number.

-- The bill's supporters have listed as an active mine "possibly inside proposed wilderness or new park areas" the PS Hart Mine. The listing for that facility claims the mine produces clay with one employee. It fails to note the property is in the process of final permitting for a gold facility, proposed to process up to 3 million tons of ore annually, employing about 125 people, with an anticipated generation annually of $5.7 million local, state and federal tax revenues, $4.8 million in salaries and wages and $14.5 million in services and supplies.

-- The bill's supporters assume abandonment of non-producing mines, ignoring the cyclical nature of the industry reflecting varying supply and demand for certain mined material. For example, Kaiser Steel Resources is in the process of redeveloping and expanding properties -- which include those benefiting 6000 retirees of the United Steelworkers of America. In one case, plans call for potentially opening an iron ore mine shut for more than 40 years in response to demand created by a recent re-opening of new steel works in Provo, Utah. Currently the steel company is freighting in more than half of its raw product from northern Minnesota. The desert properties are ideally suited to meet the steel plant's needs. On one property, an S. 11 wilderness area boundary abuts Kaiser's patented claims, while its unpatented claims are encompassed in the proposed wilderness. In the other case, the property is included in S. 11's proposal for a new national park.

-- Bandying about numbers of mines to quantify impact of this legislation clouds the issue. The mines can not produce indefinitely without actively exploring to prepare for future production. The real question is where society will obtain these minerals if suppliers are excluded from the area most likely to contain them. At issue in this legislation is the ability of current mineral producers to continue exploring and developing properties to meet commodity demands.

PERCENT OF U.S. CONSUMPTION FROM IMPORTS, MAJOR FOREIGN SOURCES, AND PRINCIPAL USES FOR MINERAL COMMODITIES IDENTIFIED IN THE CALIFORNIA DESERT CONSERVATION AREA, PROPOSED WILDERNESS

Mineral Summary, Background Data for the California Desert Protection Act of 1987, Vol. 1, Page 8
U.S. Department of the Interior Bureau of Mines and U.S. Department of the Interior Geological Survey

METALS & MINERALS	MAJOR FOREIGN SOURCES	PRINCIPAL USES
NET EXPORTS		
Boron	Turkey, Italy, Argentina	Glass Products (59%), soap and detergents (7%)
Clays	United Kingdom, Mexico, Canada	Paper, refractories, pottery, tile, fire bricks, foundry sand, drilling mud, absorbent uses, construction materials
Diatomite	Taiwan, Mexico	Filter aid (67%), fillers (17%)
Feldspar	Mexico, Venezuela	Glass (54%), pottery (46%)
Garnet	Australia	Transport manufacturing (50%), filtration media (30%), wood furniture finishing (10%), electronic components (7%)
Lithium	Chile, Zimbabwe, Canada	Ceramics and glass (40%), aluminum production ,lubricants (45%)
Magnesium (dolomite)	Canada, Norway	Aluminum-base alloys (53%), magnesium castings (23%)
Molybdenum	Canada, Mexico, Chile, Federal Republic of Germany	Machinery (30%), oil and gas Industry (15%), transportation (15%), chemical (15%), electrical (15%)
Phosphate Rock	Morocco, Republic of Togo, Netherlands, Antilles	Fertilizer (92%), chemicals (8%)
Rare earth metals	Monazite: Australia, Malaysia	Petroleum catalysts (36%), metallurgical uses (31%), ceramic and glass (29%)
Sand and gravel	Canada, Australia, Antigua	Construction sand and gravel: (28%), road base (15%), asphalt (10%), industrial sand and gravel: glass (40%), foundry (21%), abrasive (7%)
Sodium carbonate	Canada	Glass (53%), chemicals (20%), soap and detergents (10%)
Talc and pyrophyllite	Canada, Italy, France	Talc: ceramics (35%), paints (17%), paper (13%). roofing (11%), pyrophyllite: ceramics (55%), refractories (17%), insecticides (11%)
0-25 PERCENT NET IMPORT RELIANCE		
Beryllium	China, Brazil, Republic of South Africa, Switzerland	Alloy and oxides in electrical equipment and components (56%), nuclear reactors and aerospace (22%)
Cement	Canada, Mexico, Spain	Ready-mix concrete (72%), concrete products (12%)
Copper	Chile, Canada, Peru	Construction (42%), electrical and electronic (24%)
Gold	Canada, Switzerland (mostly Rep. of South Africa origin) Uruguay	Jewelry and arts (59%), electronic (33%), dental (8%)
Lead (metal)	Canada, Mexico, Australia, Peru	Transportation with 70% in batteries and gasoline additives
Perlite	Greece	Building construction (70%), filter aid (12%)
Salt	Canada, Mexico, Bahamas	Chemical Industry (47%), Highway de-icing (26%)
Stone (crushed)	None	Construction aggregate (83%), cement and lime (11%); of the crushed stone, 72% was limestone-dolomite; 15% granite
Titanium (metal)	Japan, USSR	Aircraft and aerospace (75%)
26-50 PERCENT NET IMPORT RELIANCE		
Gypsum	Canada, Mexico, Spain	Industrial and building plaster (77%), cement and agriculture (20%)
Iron ore	Canada, Venezuela, Liberia, Brazil	Blast furnaces (97.8%), steel furnaces (2.3%)
Pumice and pumicite	Greece	Concrete aggregate and building block (90%)
Selenium	Canada, United Kingdom, Japan, Belgium	Electronic and photo copiers (35%), chemical (28%), glass (25%)
Stone (dimension)	Italy, Canada, Spain	Building construction (47%), monuments (26%), rubble (14%); of the total, 55% was granite, 25% limestone, 11% sandstone

PERCENT OF U.S. CONSUMPTION FROM IMPORTS, MAJOR FOREIGN SOURCES, AND PRINCIPAL USES FOR MINERAL COMMODITIES IDENTIFIED IN THE CALIFORNIA DESERT CONSERVATION AREA, PROPOSED WILDERNESS – CONTINUED

METALS & MINERALS	MAJOR FOREIGN SOURCES	PRINCIPAL USES
51-90 PERCENT NET IMPORT RELIANCE		
Asbestos	Canada, Republic of South Africa	Friction products (22%), roofing products (17%), asbestos-cement pipe (17%), coatings and compounds (15%)
Barite	China, Morocco, India	Weighting agent in drilling muds (95%), paints and rubber
Cadmium	Canada, Australia, Mexico, Fed. Rep. of Germany	Coating and plating (35%), batteries (30%), pigments (20%)
Chromium	Rep. of South Africa, Turkey, Zimbabwe, Yugoslavia	Chemical and metallurgical industry (90%), refractory industry (10%)
Fluorspar	Mexico, Republic of South Africa	Hydrofluoric acid (70%), steelmaking (25%)
Nickel	Canada, Australia, Norway, Botswana	Stainless and alloy steel (39%), nonferrous alloys (29%), electroplating (22%)
Platinum-group metals	Republic of South Africa, United Kingdom, USSR	Automotive (42%), electrical and electronic (20%), dental and medical (20%)
Potash	Canada, Israel	Fertilizer (95%), chemical industry (5%)
Silver	Canada, Mexico, Peru, United Kingdom	Photography (45%), electrical and electronic (26%), electroplating and jewelry (13%)
Tin	Thailand, Brazil, Indonesia, Bolivia	Electrical (20%), cans and containers (17%), construction (16%), transportation (14%)
Tungsten	Canada, China, Bolivia	Metalworking (76%), lamps and lighting (11%) electrified machinery (10%), transportation (9%)
Zinc	Canada, Peru, Mexico, Honduras	Construction materials (50%), transportation (23%), machinery (12%), electrical (10%)
GREATER THAN 91 PERCENT NET IMPORT RELIANCE		
Bauxite and alumina	Jamaica, Guinea, Surinam, Australia	Bauxite processed into alumina (90%)
Graphite	Mexico, China, Brazil, Madagascar	Refractories (25%), lubricants (15%), foundry (14%), brake linings(13%)
Manganese	Republic of South Africa, Gabon, Australia, Brazil, France	Manganese ferroalloys, dry cell batteries, chemicals
Quartz crystal	Brazil	Piezoelectric filter devices and oscillators
Strontium	Mexico, Spain	Television tube glass (58%), pyrotechnics (15%)
Tantalum	Thailand, Australia, Brazil	Electronic components, (58%), machinery (19%), transportation (15%)
Thallium	Belgium, Netherlands, United Kingdom, Fed. Rep. of Germany	Electronics (70%)
NET IMPORT DATA WITHHELD		
Antimony	Bolivia, China, Mexico, Republic of South Africa, France	Flame retardants (65%), batteries (10%), chemicals (10%), ceramics and glass (5%)
Bismuth	Peru, Mexico, United Kingdom, Belgium	Pharmaceuticals (50%), machinery (22%), primary metals (28%)
Mercury	Spain, Algeria, Turkey	Electrical (51%), chlorine production (16%), paints (11%)
Tellurium	Canada, Philippines, United Kingdom	Iron and steel production (60%), nonferrous metals (25%), chemicals (10%)
Thorium	France, Netherlands, Canada, Australia, United Kingdom	Nuclear fuel, incandescent lamp mantles, alloys, refractories, ceramics, welding electrodes
Vanadium	Rep. of South Africa, European Communities, Canada	Alloying agent for iron and steel
Zirconium	Australia, Republic of South Africa, France	Foundry sand (35%), refractories (30%), ceramics (20%), abrasives (5%)
MINERALS NOT LISTED IN MINERAL COMMODITY SUMMARIES		
Uranium		Nuclear energy
Wollastonite		Paints, plastic and tile
Zeolite		Filter-aid, absorbents

Source: Adapted from U.S. Bureau of Mines, Mineral Commodity Summaries, 1987, 183 p.

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LABORATORY Energy & Mineral Resources Research Institute
Iowa State University | Ames, Iowa 50011-3020

February 2, 1988

Dr. Louis C. Ianniello
Deputy Associate Director
for Basic Energy Sciences
Department of Energy
Washington, DC 20545

Dear Lou:

This letter is in response to your letter of December 31, 1987 to D. K. Finnemore (and others) requesting information concerning the need to keep open the California Desert Area for minerals exploration and recovery— I will limit my comments to the rare earth materials, in particular to the large rare earth deposit located at Mountain Pass, California, owned and operated by Molycorp, Inc. a Unocal company.

This mine is the only large viable source of rare earth materials in this country and the rare earths mined there are an important source of critical materials for the USA's current energy and defense efforts, and our country's advanced technological industries. Some of the more important ones are listed below:

1. Phosphors — communications, CRT (cathode ray terminal) displays etc. Use Y, Ce, Eu, Tb in these applications.

2. Lasers — SDI, communications, etc. Use Nd, Y.

3. Permanent Magnets — motors, and a variety of electrical and electron devices, etc. Use Nd, Sm.

4. Lighting — rare earth phosphors: rare earth containing lights are so efficient that electrical costs and also capital costs are reduced by a factor of three over conventional lights. Use Y, Eu, Tb.

5. Structural and electronic ceramics — yttria-stabilized zirconia, sialons, and Si_3N_4. The structural ceramics are being used in motors, machinery etc. for operation at higher temperature which improves the efficiency and decreases energy consumption. The yttria-stablized zirconia material is also used in electronic sensors which allows devices to operate at high temperatures,

Operated for the U S Department of Energy Under Contract W-7405-Eng-82

or under more adverse environmental conditions, or to improve operating conditions of processes or motors, e.g. they allow automobile gasoline engines to run more efficiently and lower gasoline consumption by controlling the lean to rich gasoline to air ratio (also see item 3 below).

6. Catalysis – mixed rare earth oxides, La_2O_3, CeO_2 are used in a variety of catalytic processes including gasoline cracking.

In addition to the above national needs, the rare earths also have an impact on the environment and health of mankind.

1. Rare earths are used to decolorize glass bottles (soft-drinks, etc.) replacing arsenic which was used extensively up to the 1960-1970's.

2. Rare earth x-ray phosphors have enabled doctors to reduce patients exposure to x-rays by a factor of ten over the conventional x-ray phosphors. One medical doctor stated that this was the greatest discovery in the medical x-ray field since the initial discovery of x-rays by Roentgen.

3. Yttria-stablized zirconia electronic sensors play an important role in keeping the exhaust emissions from automotive gasoline engines within government standards by controlling the rich to lean gasoline to air ratio, in addition to improving the gasoline mileage as noted in item 5 above.

4. Automotive exhaust catalysts – the rare earths are used extensively in the exhaust system to reduce the combustion pollutants to an environmentally acceptable level.

Also attached is a brief list from Molycorp of the uses of the rare earth materials as the individual elements, which includes some not mentioned above in my letter.

The future involvement of the rare earths in energy, defense and military areas, high technology commerce, and environmental and health areas will continue to grow and have even a much higher impact than they do today. As rightly pointed out by Mr. Robert F. Burford, the new high temperature superconductors will play an important role in these areas in the future. But there are other developments on the horizon which will have, in my view, even a greater impact than these high temperature superconductors. The two most likely areas are: (1) heavy fluoride optical fibers, and (2) aqueous corrosion inhibitors and corrosion resistant coatings. In the first, LaF_3 is likely to be one of the major components in the heavy fluoride glasses used for optical fibers. These new materials have the potential of increasing the transmission of light by about a factor of 5 to 10 over the silica glasses currently in use. In the second, recent experiments have shown that rare earth chlorides are nearly as good as chromates in inhibiting metal corrosion in aqueous environments, and that rare earth oxide coatings on Al, Fe and other metals and alloys are extremely efficient in preventing oxidation and corrosion. At the present stages these coatings are more resistant than Zn, Cd and nitrite coatings. The main advantage of the use of rare earths over these other materials is that the rare earths are not toxic, as are chromates, Zn and Cd, nor carcinogenic as nitrites. I expect that there will be tremendous pressure in the future for the rare earths to be used in place of these environmentally unacceptable materials. My vision of the future would indicate that in the mid to late 1990's these two applications will have a significant impact on the utilization of the rare earths. Also coming on strong at that time will be the use of Nd-Fe-B permanent magnets (mentioned in the second paragraph above, item 3) which I believe will account for half of the rare earth consumption in 1995. These magnets are predicteed to have a final product value of $1.5 billon annually in 1995.

My biggest concern is that the Senator Cranston proposal (Senate Bill 7) will severally restrict the mining of rare earths from the Mountain Pass mine, (the free world's largest source of bastnasite), such that they will be unable to meet the USA's demand for rare earth materials in the future. This means we will need to import ore from overseas — Brazil, India, Australia and People's Republic of China being the most likely sources. This will have an adverse effect on our balance of payments and a much stronger dependence on other countries. It is true that we have many other rare earth ore sources in this country — primarily monazite. But little of it is being mined today because it is not economically viable. The USA can, of course, be independent of the foreign sources of rare earths, but at a greatly increased cost of these rare earth materials.

The closing of the California Desert Area for mineral exploration and recovery would have not only a severe economic impact on the country (which would eliminate our competitive advantage over the other advanced high technology countries, i.e. Japan and Western Europe), but would have a significant deleterious effect on energy consumption, our defense and military posture, and the environmental well-being of the human race.

Sincerely yours,

Karl

Karl A. Gschneidner, Jr.
Distinguished Professor in
Sciences and Humanities
Senior Metallurgist
Director, Rare-Earth Info. Center

KAG:lt

cc: R. S. Hansen
D. K. Finnemore
R. B. Thompson

APPENDIX II

Additional Material Submitted for the Record

HONORABLE DUNCAN HUNTER
THE CALIFORNIA DESERT PROTECTION ACT OF 1989
HEARING BEFORE THE
SENATE SUBCOMMITTEE ON PUBLIC LANDS,
NATIONAL PARKS & FORESTS
OCTOBER 2, 1989

Mr. Chairman, I want to thank you and the members of this panel for the opportunity to testify on Senator Cranston's legislation, S. 11, and express my views on how we can best protect, utilize, and enjoy the vast resources of the California deserts.

It is important for the committee to understand that the four California desert Members, Reps. McCandless, Lewis, Thomas and I, have been working as a team in preparation for this hearing and we are testifying today on the overall issues which we believe to be important, as well as about the many diverse and unique features of the desert within our own Congressional Districts.

Before I start with some of my reasons for opposing this legislation, I would like to offer a couple of personal comments. I was born and raised in Riverside, California - one of the many gateway cities to the California desert. I learned a great respect for the strength and the fragility of the area at a very young age. As a youngster with a tremendous love of outdoor activities like hunting and fishing, I came to understand that it was each individual's responsibility to conserve this great resource.

My primary reason for opposing the legislation is that it undercuts the decade-long preparation of the California Desert plan, under which the California desert is currently managed. This process, authorized by the Congress, developed a comprehensive land use plan specifying the principle of multiple use and conservation.

I would like to take a brief moment to praise the efforts of the Bureau of Land Management and the California Desert Conservation Area Advisory Committee and the work they have done putting into effect this mandate of the Congress. Since the passage of the Federal Land Policy and Management Act (FLPMA), the BLM has invested countless dollars and time to design a realistic approach to plan for the future of the California desert. I strongly believe that this process has the advantage over legislation because of public participation and a recognition that the people of California have both the right and the responsibility to enjoy and use our many desert resources.

The 12.5 million acres under the protection of the BLM have been well managed with the resources that have been made available. Working along with the Desert Advisory Committee, the BLM has established and designated over 650,000 acres as Areas of Critical Environmental Concern, has designated four classifications of land use, established the 13,000 acre Fringe-toed lizard preserve, reduced threats to desert vegetation by wild animal foraging, helped to develop a fantastic wind energy project on public lands, and was the only agency to designate areas for off-road vehicles. In my book, that is quite a list of accomplishments.

Mr. Chairman, I do have three specific concerns created by the legislation. Passage of S. 11 would have very broad policy implications for military uses of the desert. As a member of the House Armed Services Committee, I have been briefed on numerous occasions by the Army, Navy and Marine Corps on how the California Desert Protection Act would effect training and weapons testing activities.

I know, Mr. Chairman, you will be getting a more in-depth presentation of this information during the course of your hearings. However, I would simply like to address the impact this bill would have on one military reservation located in my district, the Chocolate Mountain Aerial Gunnery Range. This range is the Marine Corps' primary live-fire training area in the United States and for good reason.

There aren't many areas existing large enough or far from populated areas to train our pilots. This range consists of almost 460,000 acres, of which more than half are in the public domain. S. 11 addresses the 132,000 acres of public land in the southern portion of the range complex. This area is intensively used on a daily basis, sometimes 24 hours per day, with the exception of four scheduled closures a year for surface sweeps for ordnance, target repair and replacement, and general maintenance.

Routine users originate from Marine Corps Air Stations at Yuma, Arizona, Camp Pendleton and El Toro, from Naval Air Stations at North Island and Mirimar, and from March, Edwards and Luke Air Force Bases. In addition, the gunnery range is used year-round by squadrons from across the U.S. and Canada, including periodic visits by our allied NATO forces.

The wilderness designation of areas adjoining the range at the east and north boundaries would create both a major conflict with the public's use of these areas as wilderness, and create an impediment to infrastructure support by prohibiting access roads and vehicular use to support facilities near the boundaries of the range. More importantly, the closing off of these areas would force the concentration of non-wilderness uses, such as off-roading and rock hunting, onto vastly reduced open public lands to the west of the range. The concentration of public activities to the west of the Chocolate Mountains would be in an area dangerously close to air operations.

While the bill attempts to allow lower level flights over wilderness areas than currently allowed, the language of the bill would effectively freeze our air training operations at the levels now existing. This failure to recognize the rapid advances of fighter technologies and technique could have a very serious impact on our training operations and, eventually, our national security.

Secondly, I am quite concerned with the future development of energy and mineral resources in the California desert which would be drastically curtailed by this legislation. In my area of Imperial County, geothermal generation of electricity is booming. In fact, several acknowledged geologists have stated that the region stretching from northern Baja California, Mexico northward to the Salton Sea could be the "Saudi Arabia of geothermal energy." Geothermal resources are currently producing 330 megawatts in the Imperial Valley and new generating capacity is about to go on-line.

The geothermal generating process is environmentally sound and will become a critical component of our country's energy needs, particularly as we begin to address the problem of global warming and the need to reduce our dependence on foreign energy supplies. However, the potential growth of this industry could be seriously hampered or cut-off by limiting the areas of the California desert available for exploration and development.

In addition, the California desert is one of the most valuable sources in the world for critically needed minerals, such as the rare earths used in our semiconductor industry. I find it very interesting that the House Interior Committee only recently reported a couple of measures which deal with the need for the United States to examine and develop a domestic minerals management plan for those critical and strategic materials that are found only in the Soviet Union or South Africa, for example. Now, at the same time, we have under consideration a bill that would prohibit any future program of this kind.

Finally, Mr. Chairman, I would like to mention the odd-man-out created by the legislation. These are the thousands and thousands of working people from the major population areas bordering the California desert who go to this vast area as their week-end relief from the boss and the pressures of urban life. These are the casual rock climbers and rock hounds, the campers and hunters, the off-roaders, and the countless others who will be restricted from their various recreational activities.

I mentioned earlier, Mr. Chairman, that there is a basic principle tied-in with this whole issue - individual responsibility to respect and protect the desert environment. In fact, one of the most exciting aspects of the California desert planning process has been the involvement of these groups. Often maligned by many environmentalists, the desert recreational users have worked long and hard to find a fair solution to balance use and conservation.

For example, the California Off-Road Vehicle Association, working with the BLM and the U.S. Air Force, restored a previously abused section of the Imperial Dunes in my district. In addition, the off-roader groups have worked diligently to make their members aware of designated off-road areas and have assisted with BLM's enforcement of those areas off limits. In addition, hundreds of volunteers have joined with businesses and other groups to maintain protected areas for the desert tortoise and to restore invaluable Indian artifacts vandalized long before the advent of the BLM's management plan. I believe this demonstrates that the responsible recreational user is concerned, as much as any conservationist, that we preserve this desert for future generations.

In closing, Mr. Chairman, I would hope that we will be able to craft a reasonable piece of legislation, incorporating the years of work by many very dedicated people. Properly used and managed, the desert can be preserved for all Californians.

Comments by the City of Los Angeles on S 11 Before the Senate Committee on Energy and Natural Resources Subcommittee on Public Lands, National Parks and Forests

Mr. Chairman, members of the Committee, the City of Los Angeles (Los Angeles) appreciates the opportunity to submit for the record testimony in support of S 11. Our testimony relates to: 1) Los Angeles Department of Water and Power (DWP) facilities as they relate to the potential designation of public lands in the California desert as wilderness and as national parks; and 2) DWP geothermal leases within the proposed withdrawal of 1.1 million acres of public lands for the China Lake Naval Weapons Center (NWC).

Los Angeles supports the need to preserve and protect the beauty and resources of the desert, and to provide for continued use of withdrawn lands for national defense purposes. Los Angeles supported measures similar to S 11 introduced in the last Congress.

I. Introduction

Los Angeles' support now, as well as in the past, is based on assurances by the sponsors of S 11 and its companion measure in the House, HR 780, that they would explicitly address Los Angeles' concerns pertaining to the protection of four utility corridors and the Los Angeles Aqueduct System through the public lands addressed in the California Desert Protection Act. These concerns are described in detail in Exhibit A, which is a briefing document dated July 1987 on HR 371 and S 7 (last Congress' bills to protect the California desert).

The briefing document explains that since the early 1970s, Los Angeles has increased the importation of energy from sources outside the Los Angeles Basin in order to: reduce Los Angeles' dependence on foreign oil and on oil-fired generation by diversifying the types of electric generation sources; improve air quality in the Los Angeles Basin; and provide reliable and economical electrical service to Los Angeles. To accomplish this, Los Angeles has constructed, and plans to construct, long-distance transmission lines which traverse the California desert through confined utility corridors. These corridors have been identified and established in the Bureau of Land Management's (BLM) California Desert Conservation Area (CDCA) Plan after a long and careful process involving extensive review, negotiation, and input from the public and desert users.

In addition, the Los Angeles Aqueduct System, which supplies about 80 percent of Los Angeles' water, transports water from the Eastern Sierras to Los Angeles by crossing the California desert.

Los Angeles is concerned that any law which establishes wilderness and national park areas in the California desert not foreclose critical existing and future public land used by Los Angeles to operate and maintain transmission lines and the Los Angeles Aqueduct, as well as to construct additional transmission lines.

II. Agreement on Changes to S 11

After introduction of the predecessor bills of HR 780 and S 11 in the 100th Congress, Los Angeles, in order to protect its water and power facilities, began a negotiation process with the Sierra Club, the Wilderness Society, and the California Desert Protection League at the request of the bills' authors. This process culminated after several months with agreed boundary adjustments to various proposed wilderness areas and the proposed Mojave National Park. The agreed-to adjustments and related notations are to be placed on the appropriate maps accompanying the legislation. These agreements are summarized in Exhibit B. Exhibit C is several letters which document the agreement.

S 11, as introduced, incorporates most of the changes agreed to between Los Angeles and the environmental organizations; but in several instances, the bill and/or maps need to be corrected to incorporate agreed-to changes. We have been assured by the authors of HR 780 and S 11 that the corrections will be incorporated in any final bill. The following describes the additional changes needed in S 11 and the appropriate maps to conform to the agreements:

A. The Interstate 15 Utility Corridor (I-15 Corridor)

The existing I-15 Corridor is a three-mile-wide corridor, established by BLM's CDCA Plan as Corridor BB, that extends from Yermo, northeast of Barstow, to the California-Nevada stateline on the east. This corridor, located entirely within San Bernardino County, roughly parallels I-15 with the community of Baker at approximately the midpoint. The I-15 Corridor provides a route for future energy transmission lines from Los Angeles to outside Southern California.

The agreement with the environmental organizations resulted in recognition of the I-15 Corridor. Accordingly, boundary modifications were made to the Hollow Hills, Soda Mountains, and Clark Mountains Wilderness Areas to eliminate proposed wilderness lands which significantly overlapped the I-15 Corridor (see Exhibit B).

Agreement by the sponsors of S 11 that the I-15 Corridor should be protected in the bill also means that the proposal for the Mojave National Park will have to be modified to allow the establishment of the I-15 Corridor. The I-15 Corridor is located south of the Clark Mountains Wilderness Area within the proposed Mojave National Park.

Although the authors of HR 780 and S 11 have agreed to establish the I-15 Corridor, it is their intention to work with this Committee and its counterpart in the House to reconcile the creation of the Mojave National Park and the establishment of the I-15 Corridor through this area. Los Angeles looks forward to working with the respective parties in this reconciliation.

B. Red Rock Canyon State Park

S 11, as introduced, proposes to convey a total of 20,500 acres of BLM lands to the State of California (State) for addition to the Red Rock Canyon State Park. Approximately 4,000 acres of this total is subject to a pending administrative transfer between the State and BLM. The agreement between Los Angeles and the environmental organizations is that those lands subject to the administrative transfer will be deleted from the bill. Accordingly, Section 601 of S 11 should be amended to transfer to the State only 16,500 acres; not 20,500 acres. In addition, Los Angeles has agreed to use only those areas of the Sylmar-Celilo Corridor (identified by BLM as Corridor A in the CDCA Plan) on the west side of Highway 395.

In accordance with the agreement, Maps R-1 and R-2 accompanying S 11, which delineate the lands to be transferred to the State, should indicate which of those lands are subject to the pending administrative transfer. In addition, a clear notation needs to be placed on the maps which states that none of the lands that are subject to the administrative transfer are conveyed to the State by the bill.

If the Committee chooses to statutorily transfer the 4,000 acres subject to the pending administrative transfer, Los Angeles would seek to amend S 11 to include language which requires the State to recognize the corridor and ensure that the construction, operation, and maintenance of existing and future electric transmission facilities located within the corridor are not precluded (see amendment shown in Exhibit D).

III. Utility Facility Operation and Maintenance

Although S 11, as proposed, does not terminate rights-of-way for existing utility energy facilities, it does not expressly protect a utility's ability to maintain and operate its facilities or construct additional facilities within the corridor according to the practices accepted by the utility industry. Such practices include: helicopter facility surveys, helicopter-assisted construction, and maintenance repairs; and vehicular use within the utility corridor.

Los Angeles supports inclusion of statutory language in S 11 to explicitly allow for construction, operation, and maintenance activities within the utility corridor including: 1) aircraft overflights of adjacent national park and wilderness areas; and 2) transmission line activities occurring within the corridor which are visible and audible from within the boundaries of adjacent national park and wilderness areas. These provisions will allow Los Angeles to construct, operate, and maintain its existing and future facilities in the utility corridors to be protected by this bill in a safe and reliable manner. Proposed statutory language for this purpose is set forth in Exhibit E.

IV. Military Withdrawal for the NWC

Los Angeles has a separate concern with Title VII of S 11 which provides for a military withdrawal at NWC. Title VII also sets forth the management duties of BLM and the Department of the Navy (Navy) relative to lands and natural resources within the NWC. Los Angeles' concern specifically relates to the delineation of respective responsibilities between the Navy and the BLM in the administration of geothermal development within the NWC. Los Angeles is presently developing its Coso Geothermal Power Project which is being developed pursuant to Department of the Interior (DOI) geothermal leases awarded to Los Angeles on DOI lands within the NWC. These lands are within an area designated by the BLM pursuant to the Geothermal Steam Act of 1970 (Act) as the Coso Known Geothermal Resources Area (Coso).

Los Angeles is developing its federal leases with the understanding that the BLM is the lead National Environmental Policy Act (NEPA) agency and the Navy is the "surface manager". However, at Coso, the Navy's role as "surface manager" has been so loosely interpreted that it has allowed the Navy's assumption of authority beyond what was intended in our lease agreement with BLM. After several years of trying to satisfy both BLM and Navy requirements separately, Los Angeles found the NEPA lead agency/surface manager relationship to be inefficient in promoting geothermal development. Clarification of the roles of each agency is essential to the effective development of these resources.

Accordingly, when Senator Wilson and Congresswoman Byron introduced S 1570 and HR 1548, respectively, which were similar to Title VII of S 11, in the last Congress, Los Angeles requested that these bills be amended to clearly define and reaffirm BLM as the lead administrative and management agency for geothermal leases issued at the NWC pursuant to the Act.

Subsequent discussion between Los Angeles, BLM, and Navy representatives culminated in mutually acceptable amending language to S 1570 and HR 1548. That language has been incorporated by Senator Wilson and Congresswoman Byron in the military withdrawal bills S 452 and HR 2272, respectively, which they introduced in the 101st Congress. The language is located on p. 7, lines 16-22 of S 452, and on p. 8, lines 1-8 of HR 2272.

Los Angeles has been given assurances by the authors of HR 780 and S 11 that language similar to that which was mutually agreed to by the Navy, BLM, and Los Angeles regarding the geothermal lease administration within the NWC should be incorporated into these bills. Los Angeles, accordingly and respectfully, requests that the Committee amend S 11 to include the language we have proposed as Exhibit F.

V. Fort Irwin Expansion

Los Angeles also has concerns relating to the proposed expansion of the Department of the Army's National Training Center at Fort Irwin, which we understand may be addressed in S 11. At this time, the Draft Environmental Impact Statement for Fort Irwin relative to the expansion has not been released for public comment. However, Los Angeles understands that the various Fort Irwin expansion alternatives could potentially impact one or more utility corridors which Los Angeles is seeking to protect in S 11. In the event it is proposed to amend S 11 to provide for the expansion of Fort Irwin, Los Angeles respectfully requests that statutory language be included which: 1) protects Los Angeles' ability to operate, maintain, and construct transmission lines in the affected corridor; 2) requires the military to assume all liability for damage to transmission line facilities resulting from its military operations; and 3) requires the military to pay for any safety or other measures needed to protect the transmission line facilities from military activities.

VI. Summary

Los Angeles continues to support enactment of the California Desert Protection Act; however, Los Angeles believes that S 11 must be amended as set forth above to allow continued reliable and competitive energy and water for Los Angeles citizens. These amendments reflect significant negotiations and provide a compromise between the affected parties and Los Angeles.

Los Angeles looks forward to working with the Committee in its effort to enact S 11 and to ensure that this compromise is incorporated.

AMERICAN
MINING
CONGRESS
FOUNDED 1897
Suite 300
1920 N Street N.W.
Washington, D.C. 20036
202/861-2800
TWX 710/822-0126
Easylink: 62756020
John A. Knebel
President

Statement of

American Mining Congress

on

S.11

California Desert Protection Act of 1989

for inclusion in the hearing record

of the

Subcommittee on Public Lands, National Parks and Forests

Committee on Energy and Natural Resources

United States Senate

October 2, 1989

Mr. Chairman and members of the committee, the American Mining Congress welcomes this opportunity to present its views and comments on S.11, the California Desert Protection Act of 1989. AMC is strongly opposed to enactment.

The American Mining Congress is an industry association that encompasses (1) producers of most of America's metals, coal, and industrial and agricultural minerals; (2) manufacturers of mining and mineral processing machinery, equipment and supplies; and (3) engineering and consulting firms and financial institutions that serve the mining industry.

One-third of our nation's land area, approximately 750 million acres, is public land. Nearly two-thirds of the public lands are effectively foreclosed to mineral exploration and development. These lands contain valuable stores of mineral and nonmineral resources that are useful and important to the United States and its people. These resources are the keystone of the nation's economy and essential for production and delivery of our most basic needs--energy, food, water, shelter and manufactured goods. Therefore, the mining industry is deeply concerned that public lands not be foreclosed to mineral exploration and development, but be kept open to responsible multiple-use management.

The United States has suffered a deteriorating position in global minerals trade and is increasingly vulnerable in its dependence on imports. One reason that the domestic minerals industry finds it difficult to compete in world markets is because of the continuing decrease in availability of federal lands for exploration and development. Although there may be a good reason in some instances to reserve certain public lands for an exclusive purpose, we believe that much of this land could and should serve multiple uses, including mining. In stating this, we are mindful that mining can only take place where deposits are found and the public lands offer as yet unexplored mineral potential.

In the entire history of the nation, less than one quarter of one percent of our lands has been disturbed for all types of mineral development, including coal, oil and gas. Large acreages are necessary for hardrock exploration, but development of a single major deposit will only occupy a small area. Despite these statistics, millions of acres of mineralized land are set aside as unavailable for exploration.

Because of the dependence of our nation's economy on minerals and the shrinkage of the available mineral land base we are greatly concerned with the huge amount of wilderness and park acreage proposed in S.11. The bill completely ignores the highly significant mineral values that exist in the Desert.

California has been the leading state in the production of nonfuel mineral resources since 1981. According to U.S. Bureau of Mines statistics, in 1986 approximately $1.1 billion of the $2.3 billion California nonfuel mineral commodities came from production within the California Desert. At the present time 90,000 of the approximately 153,000 unpatented mining claims on record for locatable minerals in California, are located within the California Desert Conservation Area. More than 1,400 mining and exploration proposals have been submitted for review to the Bureau of Land Management since 1980. The California Desert Protection Act's severe constraints on further mineral exploration and development will, therefore, have a definite impact on California's future economy and development and limit employment opportunities and tax revenues.

It has been argued that no mineral potential presently exists in this area because the area has been prospected for over a hundred years and either no mines exist or old mines have been abandoned. Nothing could be further from the truth. The California Desert is considered one of the most highly mineralized areas of the United States. There are very significant known reserves in this area and the geological character of the Desert has not yet been extensively explored for minerals because it has not been technologically or economically feasible to do so.

Discovery of a valuable mineral deposit has often been described as "looking for a needle in a haystack." It is an extremely time-consuming and expensive proposition to prove a discovery and put a mine into production. The technology needed to explore for these minerals and the development of uses for these minerals are constantly changing. It is anticipated that new exploration tools and more intensive surveys of the Desert will lead to many new discoveries.

There are more than 65 mineral commodities known to exist in the California Desert. Twenty-four of these are considered strategic and three are considered critical to the United States. Strategic minerals are defined as essential for national defense and critical minerals are essential to U.S. needs. The minerals currently mined in the Desert include 97 percent of the nation's rare earths, 100 percent of the borates, 15 percent of the talc, 10 percent of the crude gypsum, and 6 percent of the metallic minerals. There is also considerable exploration activity and production of geothermal energy resources within the Desert and significant gold reserves.

Rare earths are used in superconductor applications, in computers, x-rays, magnets, alloys, and fluorescent lamps. The cement and gypsum mined in the California Desert are used extensively in the greater Los Angeles and southern California areas. Specialty clays from the Desert are used in sewer filtration systems, chemical refining, ceramics, drill needs, and specialized chemical research.

An example of how economics plays a major role in mineral development can be seen by the effect of rising gold prices on gold exploration activity in the Desert area. Gold production in the region has grown from less than 5,000 ounces in 1984 to more than 400,000 ounces in 1989.

By Congressional mandate, the California Desert is currently being managed by the Bureau of Land Management (BLM) under the California Desert Plan. This plan was carefully developed over a four-year period with extensive public participation. The mining industry was actively involved in the development of the plan along with many other Desert users. S.11 ignores the results of this planning process.

The California Desert Plan proposed approximately 2 million acres for wilderness designation, rather than the 8.4 million acres of wilderness proposed by S.11. California presently has approximately 6.3 million acres of Congressionally designated wilderness. With the two million acres of land proposed for wilderness by the BLM plan, the state would have 8.3 million acres of wilderness. Approximately 10 percent of the state would therefore be permanently preserved in the National Wilderness System. The remaining 10 million acres of public lands managed by BLM in the California Desert Conservation Area would be designated for multiple uses. The plan's proposed wilderness areas are currently undergoing the final study process directed by Congress, which requires mineral surveys by the U.S. Geological Survey and the Bureau of Mines.

Preparation of the California Desert Plan by the BLM involved extensive data collection and analysis, dozens of public hearings and more than 40,000 public comments. It was approved by two Secretaries of the Interior. It is a compromise that was carefully designed to balance the needs of preservation and desert users. S.11 undermines the tremendous amount of work and effort that was expended in developing the plan.

AMC is committed to fostering a domestic mining industry capable of fulfilling national requirements and minimizing the risks of undue dependence upon foreign sources of supply. It strongly believes that public lands can be managed for multiple uses, including mining, to provide a balance of environmental responsibility and economic results. We urge the subcommittee during its deliberation on S.11 to appreciate the need to provide for exploration, identification and development of mineral deposits within the framework of responsible multiple-use management.

AMC appreciates this opportunity to present its views on S.11.

Statement
of

The National Association of Manufacturers
On S. 11, the "California Desert Protection Act of 1989"

Submitted to the Senate Energy and Natural Resources Committee
Subcommittee on Public Lands, National Parks and Forests
October 4, 1989

Mr. Chairman and members of the Subcommittee on Public Lands, National Parks and Forests, the National Association of Manufacturers (NAM) is pleased to submit this statement for your October 2, 1989, hearing on S. 11, the California Desert Protection Act of 1989. We request that it be included in the official hearing record.

NAM OPPOSES UNNECESSARY CLOSURE OF PUBLIC LANDS

NAM opposes S. 11 on grounds that no areas of public land should be closed to or restricted from resource development and non-Wilderness multiple-uses in the absence of compelling national interest which override the need for adequate domestic supply of natural resources. The California Desert currently supplies the nation with 65 percent of its mineral commodities including 100 percent of our boron minerals, 97 percent of domestic rare earths, 15 percent of our talc, 10 percent of our crude gypsum and 6 percent of metallic minerals. Clearly, the California Desert region which would be locked up under S. 11 makes a significant contribution to our domestic minerals markets.

S. 11: WIDENING THE TRADE GAP

Abandoning the search and development for domestic resources because of ill-conceived legislation such as S. 11 will compel manufacturers to look elsewhere for minerals that play a critical role in manufacturing processes. The United States already imports over 50 percent of 22 strategic and critical minerals and materials, and it would be imprudent to further increase our dependence on these foreign sources. Chromium, for example, a major component of stainless steel, is largely imported for domestic use from the Soviet Union and South Africa.

In addition to "traditional" metals such as gold, the California Desert contains and produces half of the free world's rare earth minerals, all within S. 11's proposed Mojave National Park. These rare earth minerals are a critical component in manufacturing compounds which display superconductivity at high temperatures. Legislation to arbitrarily block the search and development of these minerals, as well as the 36 "critical" minerals, is not in the nation's best interest and could hamper our ability to be competitive in future high-tech markets.

NAM SUPPORTS EXISTING CALIFORNIA DESERT CONSERVATION AREA (CDCA) PLAN

Though NAM opposes S. 11, we do recognize the important environmental values inherent in the California Desert. For this reason, NAM supports the California Desert Conservation Area (CDCA) program which assesses these values against the need for resource development. The CDCA was implemented to assure that resource development in the California Desert would be environmentally sound. CDCA regulations successfully create a balanced multiple-use environment in the California Desert while simultaneously protecting our nation's domestic mineral needs and securing the right to explore for resources.

Great strides were taken to create a CDCA program that was fair to the public, the environment and industry. It would be both unfair and unwise to suddenly disregard some 50,000 written comments on the subject, as well as all the time, effort and money that went into developing a successful CDCA program. Moreover, Congress' original intent in creating the CDCA was to establish a multiple-use project. S. 11 clearly flies in the face of this intent.

Therefore, NAM respectfully registers its opposition to S. 11.

Thank you for the opportunity to submit our views.

NATIONAL RIFLE ASSOCIATION OF AMERICA
INSTITUTE FOR LEGISLATIVE ACTION
1600 RHODE ISLAND AVENUE, N.W.
WASHINGTON, D.C. 20036

STATEMENT OF JAMES JAY BAKER, DIRECTOR, FEDERAL AFFAIRS INSTITUTE FOR LEGISLATION ACTION, NRA ON S. 11, THE CALIFORNIA DESERT PROTECTION ACT

Mr. Chairman, the National Rifle Association -- composed of millions of members who are sportsmen and women -- strongly opposes S. 11, the California Desert Protection Act, the subject of today's hearing. Our members believe the legislation is inappropriate, ill conceived and contrary to the best interests of those who use the desert for multiple uses or who reside in the desert.

Although the statement has been made that hunting would not be affected, a closer look shows that in fact S. 11 proposes to ban and severely restrict hunting and other recreational activities in the 12.5 million acres of California desert. These are lands currently managed by the Bureau of Land Management as a result of a 1976 Congressional directive ordering the agency to implement a temporary plan for the constructive use of the desert until it can submit a final and more extensive recommendation, due in 1991.

Senator Cranston's bill would circumvent the study process set forth by Congress by having the law passed before the BLM could make a formal recommendation. Currently, the BLM administers the 12.5 million acres by a generous multiple use philosophy that attempts to be fair to hunters, miners, cattlemen, recreational vehicle users and all others.

Under S. 11, 3.2 million acres would be turned into National Parks -- no hunting allowed. Approximately 4.5 million acres would be designated as wilderness, limiting hunter access to horseback and foot. Included in the proposed wilderness designation would be 1.5 million acres that are currently rated "excellent" to "good" for hunting.

Mr. Chairman, from a hunting perspective, it is clear to see why our members are concerned. If enacted, S. 11 would be a significant loss not only to hunters and sportsmen, but all other multiple users.

The plan that is now enforced in the California desert was formulated through hundreds of public meetings and some 40,000 comments at a cost of $8 million. For the past eight years public land users and local governments have supported this plan which represents a balance among all the many competing users of the California desert.

By all accounts the BLM has done a commendable, even heroic job of ameliorating conflicts in putting the 1976 Congressionally mandated California Desert Conservation Area Plan to work. Now, it appears that Senator Cranston and his supporters want to disrupt this balance. Not having received what they wanted when the plan was enforced, they are now attempting to circumvent the prescribed procedure.

Mr. Chairman, it is important to keep in mind that merely proposing an area for a wilderness designation study area works strongly to the disadvantage of hunting groups, because as soon as an area is suggested for wilderness designation, it is treated like one until a study can be made and a Congressional vote taken, which often takes years.

However, under the current plan, the public has an excellent opportunity to influence policy concerning wilderness designations. And, permitting the taxpayers to make the final decision on how the land is ultimately managed should be an agreeable goal. Resource protection and utilization can co-exist.

In conclusion, Mr. Chairman, I thank you for the opportunity to present the views of millions of NRA members who oppose the legislation proposed here today, S. 11. We want to make it easy for hunters to hunt. They are the ones that have for the past 50 years, under the Pittman-Robertson Act, contributed millions of dollars each year for good wildlife management programs. The hunters keep our wildlife populations thriving and their habitats intact. On behalf of the National Rifle Association, I urge you to oppose S. 11.

x x x

Statement of
Viceroy Resource Corporation
and
Viceroy Gold Corporation

on

S. 11

"The California Desert Protection Act"

Before the

Subcommittee on Public Lands, National Parks and Forests
of the
Committee on Energy and Natural Resources

United States Senate

October 2, 1989

Viceroy Gold Corporation, headquartered in Las Vegas, Nevada, is a subsidiary of Viceroy Resource Corporation, a Vancouver-based resource company. Viceroy Gold is developing a major gold mine on patented and Federal land in the eastern portion of the Mojave Desert in California. Viceroy is vitally interested in S. 11 because the bill would place its gold mining project, known as the Castle Mountain Project, entirely within the boundaries of the proposed Mojave National Park. The bill would also place additional acreage embraced within Viceroy's mining claim block within the proposed park and parts of two proposed wilderness areas that the BLM had found to be non-suitable for wilderness designation.

Viceroy began exploration work at the Castle Mountain site in 1983. The site is located within the Hart Mining District, which, since the first decade of this century, has hosted a number of successful mining operations. The area is probably best known for the short-lived gold boom which followed the discovery of gold there in 1907. The boom ended quickly but not before three underground mines were placed in production and the town of Hart was formed. By 1911, when the richest seams had been mined out, the population had dwindled to a handful of people, and by 1919 Hart was no more than a ghost town.

Despite the demise of the gold bonanza, the Hart Mining District continued as a successful mining area. Since the 1920s, clay miners have been mining the area's high-grade clay deposits. At their peak in the 1950s, the clay quarries were producing 200,000 tons per year, and in 1987 annual production was 10,000 tons. Attempts were also made to reopen the old gold mines. From 1932-1942 a cyanide mill processed crushed rock from the old shafts, and explorers continued the search for high-grade ore into the 1980s.

No more high-value veins were found, but the exploration work that Viceroy began in 1983 led to the discovery of two million ounces of thinly-spread gold. By 1986, Viceroy had acquired enough geologic information to convince its management to conduct a detailed engineering study of the feasibility of placing the Castle Mountain Project into production. The study concluded that the volume and grade of the Castle Mountain reserves are such that gold could be extracted economically using present-day open pit, heap leach mining techniques.

In 1987 Viceroy commissioned extensive studies of plant life, wildlife, water, land use, archeological values and recreational factors. With the information gained from these studies, Viceroy proceeded to design a mining project that avoids significant environmental impacts.

Viceroy submitted its initial plan of operations for the Castle Mountain project to the Bureau of Land Management ("BLM") in late 1987. Based upon an environmental assessment ("EA"), the BLM approved the plan. However, concern was expressed that a project of this magnitude was permitted on the basis of an EA, rather than a full environmental impact statement, and an appeal was filed. Following consultation with the BLM, Viceroy requested that the appeal be remanded so that the BLM could initiate the more detailed environmental impact statement/report ("EIS/EIR") process.

Viceroy's action was based on two very important reasons. First, the project had expanded from the time the EA was prepared. Second, Viceroy felt that the EIS/EIR process would further its commitment to developing its projects in an environmentally sensitive manner with full public input and review. As a result, Viceroy took a further 12 months to conduct additional field studies and public scoping meetings to prepare the draft EIS/EIR. Under the supervision of the BLM and San Bernardino County, Environmental Solutions of Irvine, California has completed the draft EIS/EIR, which concludes that the project meets regulatory requirements and will have no significant adverse impact on the environment.

The public has had an opportunity to respond to the draft EIS/EIR either in writing or by attending three public hearings which were held in the spring of this year. The public's comments are being reviewed by the BLM and will be addressed in the Final EIS/EIR. Viceroy has submitted with this statement a summary of the draft EIS/EIR for inclusion in the subcommittee's file on S. 11.

Viceroy's Castle Mountain project is an example of how advances in knowledge and technology make it possible to design a major mine that not only creates jobs and economic benefits but also has minimal environmental impacts. When completed, the Viceroy mine will employ up to 150 people, will generate $19 million per year for payroll and the purchase of supplies and services, and will contribute $60 million in taxes to the local, state and federal governments during the 10-year life span of the mine.

The Castle Mountain Project incorporates nearly 100 mitigation measures designed to minimize the environmental impact of the project. Two are worthy of mention here, for they demonstrate the degree of Viceroy's commitment to environmental protection. First, Viceroy will fill in, slope and revegetate the unsightly clay pits that now mark the site's mountain slopes. By blending the pits in with the surrounding scenery, Viceroy's action will significantly improve the visual resources of the area.

Second, Viceroy's acquisition of the YKL ranch in Nevada and California will allow it to realign its proposed Searchlight access road to avoid disturbance of crucial desert tortoise habitat in the Piute Valley of Nevada and to dedicate large tracts of the ranch pasture to the study and preservation of the tortoise. Viceroy recently entered into an agreement with the Nature Conservancy which contemplates the eventual transfer of the ranch to the Conservancy and a substantial financial contribution by Viceroy to the study and protection of the desert tortoise.

To date, Viceroy has spent $1.8 million on environmental studies for the project and anticipates spending an additional $3.5 million on the implementation of its proposed mitigation measures.

While the design of the Castle Mountain project reflects Viceroy's strong commitment to environmental protection and is fully consistent with BLM's California Desert Conservation Area Plan, as a development project the Viceroy mine would not be compatible with the traditional purposes of a national park. As the attached maps of the Castle Project indicate, the 2,735-acre project site lies totally within the boundaries of S. 11's proposed Mojave National Park. Further, the Ivanpah and Searchlight access roads that will serve the project traverse the proposed park.

Despite vague allusions in S. 11 to valid existing rights, there is nothing in the bill that would preclude the Park Service from imposing additional stringent regulatory requirements on Viceroy's construction, operation and reclamation of the project or its use of access roads which could so impair the economics of the project as to destroy any economic incentive to proceed with it.

Similarly, the bill's valid existing rights language would not protect the right Viceroy currently enjoys to conduct exploration work on the remainder of the claim block it holds within the boundaries of the proposed park and the two proposed wilderness areas. The attached maps show the location of the

Castle Mountain Project and the Viceroy claim block within the East Mojave National Scenic Area boundary, which is identical to the boundary of the proposed Mojave National Park. The Castle Mountain Property map also shows the location of its claims within the Castle Peak WSA (CDCA #266) and the Fort Piute WSA (CDCA #267) which S. 11 would designate in their entirety as wilderness. While under present law Viceroy may conduct exploration activities on these claims without prior validation proceedings, upon enactment of S. 11, Viceroy would be precluded from conducting further exploration work in an area that has high potential for the production of additional valuable gold reserves unless its claims have been previously validated.

The BLM California Desert Plan recognized the mineral potential of the lands covered by the Viceroy claim block within the boundaries of the two WSAs. The BLM recommended both areas as suitable for wilderness designation but excluded from its recommendation all of the acreage covered by the Viceroy claim block within the Castle Peak WSA and all but 265 acres within the Fort Piute WSA. The BLM recommendations are reflected on the attached Castle Mountain Property map. It should be noted that the area encompassed by the Castle Mountain Project lies totally outside of the boundaries of both WSAs.

To avoid potential conflicts between Viceroy's right to develop the Castle Mountain Project and the preservationist ethic of the National Park Service and to preserve Viceroy's right to explore on the remainder of its mining claims, the Viceroy claim block should be excluded from the boundaries of S. 11's proposed new park and wilderness areas. Such an exclusion would be consistent with the boundary adjustment that was made to exclude the Molycorp mining claims at Mountain Pass from the boundaries of S. 11's proposed Mojave National Park.

Even if the Viceroy claim block is excluded from the proposed park area, Viceroy will still need access to its claims through the proposed park via portions of the Ivanpah road. Viceroy's proposed plan of operations for the Castle Mountain Project seeks to obtain rights of access over this road and the Searchlight access road. To protect whatever access rights that may be approved under a plan of operations, S. 11 should be modified in two respects. First, the bill should affirm that existing rights of access will survive the bill's passage. Second, the bill should restrict the authority of the Park Service to impose a new regulatory regime over the exercise of those rights. The following amendment would address these problems. The language of the amendment is consistent with what Congress has done in earlier enactments affecting the status of public lands and is nearly identical to language Congress has inserted in bills transferring lands from the BLM to the Forest Service to enlarge the boundaries of a particular forest. A similar provision was included in the Nevada interchange bill, Public Law 100-550, enacted last year.

The amendment would add the following new section to Title IV of S.11:

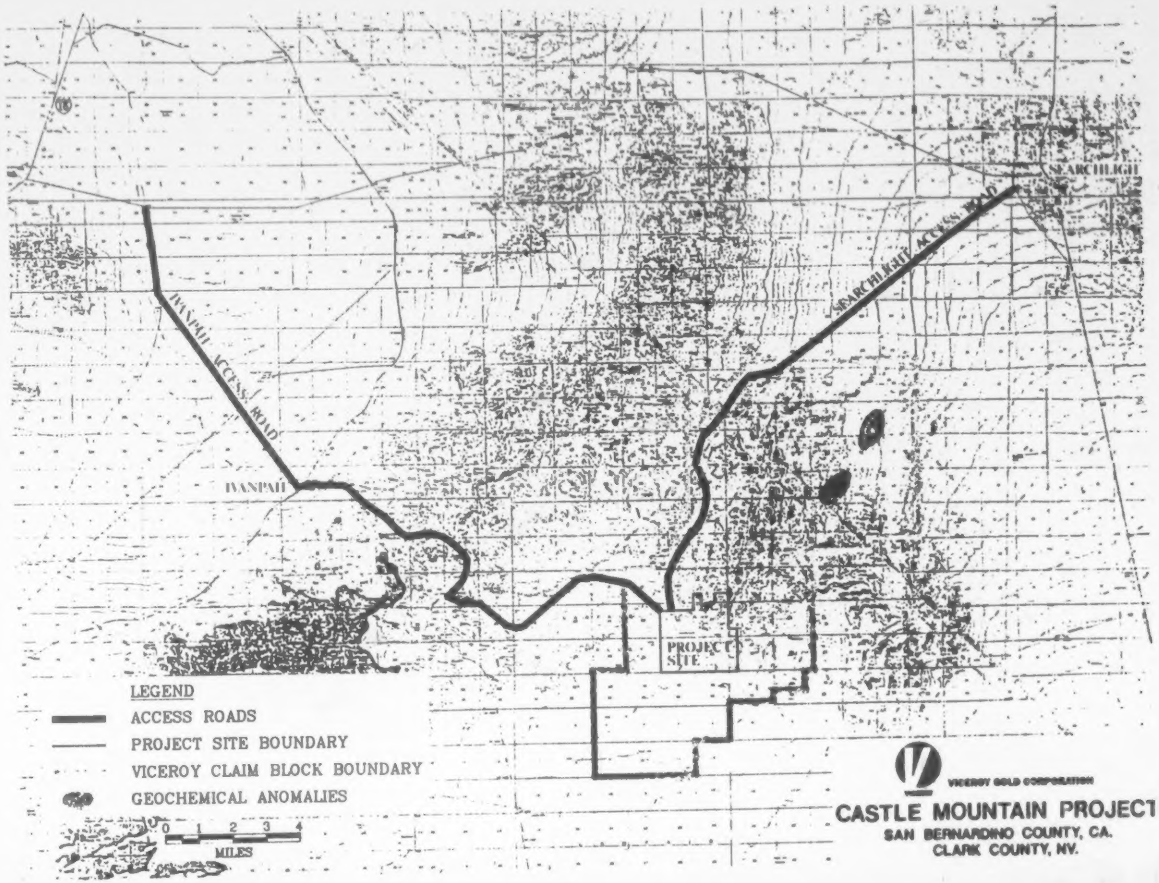
VALID EXISTING RIGHTS

Sec. ____.

(a) Nothing in this title shall affect valid existing rights of any person under any authority of law.

(b) Authorizations to use lands within the boundary of the park which were issued prior to the date of enactment of this title shall remain subject to the laws and regulations under which they were issued. Such authorizations shall be administered by the Director of the National Park Service. Any renewal or extension of such authorizations shall be subject to the laws and regulations pertaining to the agency which has jurisdiction over the land at the time the renewal or extension is requested. Except as provided in section 410 [relating to grazing rights], the change of administrative jurisdiction resulting from the enactment of this title shall not in itself constitute a basis for denying or approving the renewal or reissuance of any such authorization.

Finally, Viceroy would like to voice its support for BLM's California Desert Plan. Section 601 of the Federal Land Policy and Management Act (43 U.S.C. 1781) directed the BLM to develop a management plan for the California Desert that recognizes principles of multiple use and protects the desert's unique environmental values. The BLM's California Desert Plan accomplishes these difficult and sometimes competing goals by striking a balance which preserves the environmental and economic resources of the desert for future generations.


SEARCHLIGHT
SEARCHLIGHT ACCESS ROAD
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PROJECT SITE
LEGEND
ACCESS ROADS
PROJECT SITE BOUNDARY
VICEROY CLAIM BLOCK BOUNDARY
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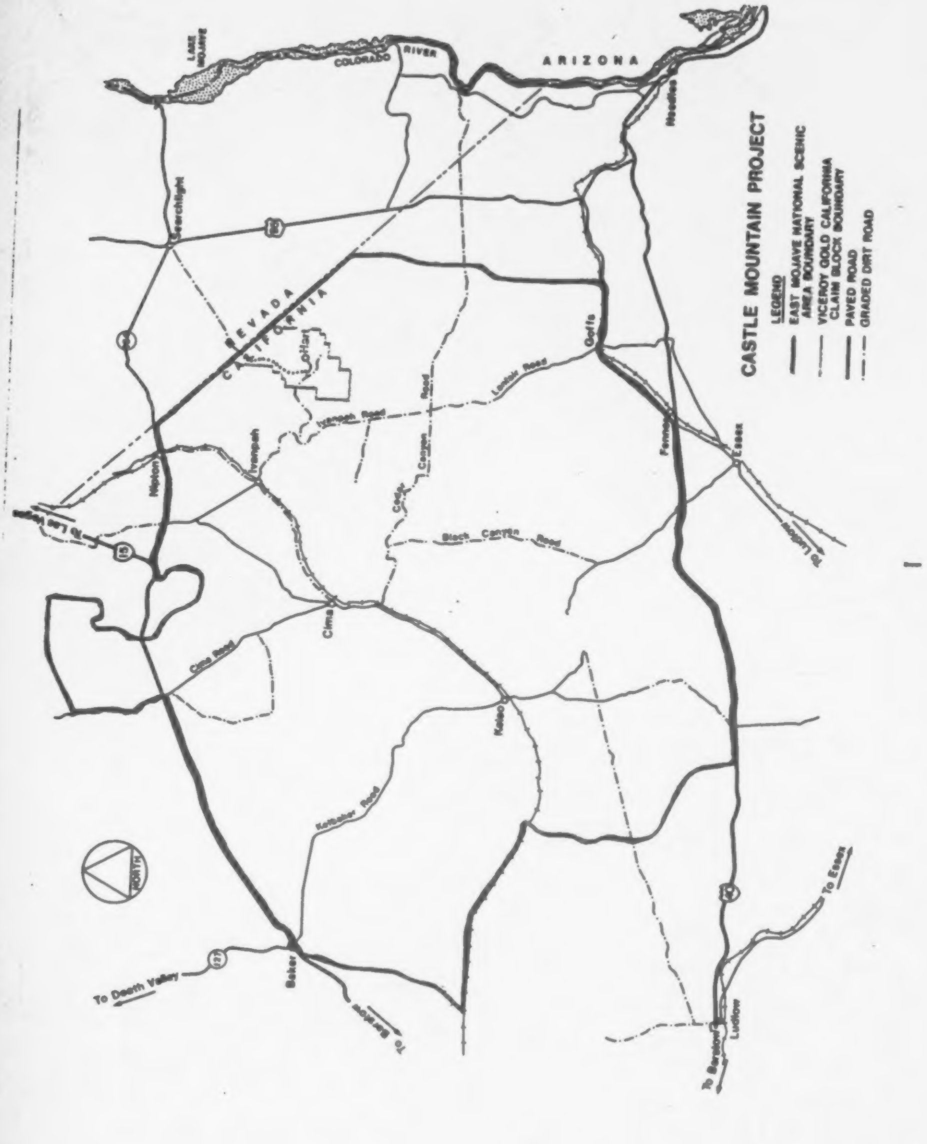
CASTLE MOUNTAIN PROJECT
SAN BERNARDINO COUNTY, CA.
CLARK COUNTY, NV.


CASTLE MOUNTAIN PROJECT
LEGEND
EAST MOJAVE NATIONAL SCENIC AREA BOUNDARY
VICEROY GOLD CALIFORNIA CLAIM BLOCK BOUNDARY
PAVED ROAD
GRADED DIRT ROAD
NEVADA
CALIFORNIA
ARIZONA
LAKE MOJAVE
COLORADO RIVER
Searchlight
Needles
Goffs
Fenner
Essex
Nipton
Ivanpah
Cima
Kelso
Baker
Ludlow
Lanfair Road
Ivanpah Road
Cedar Canyon Road
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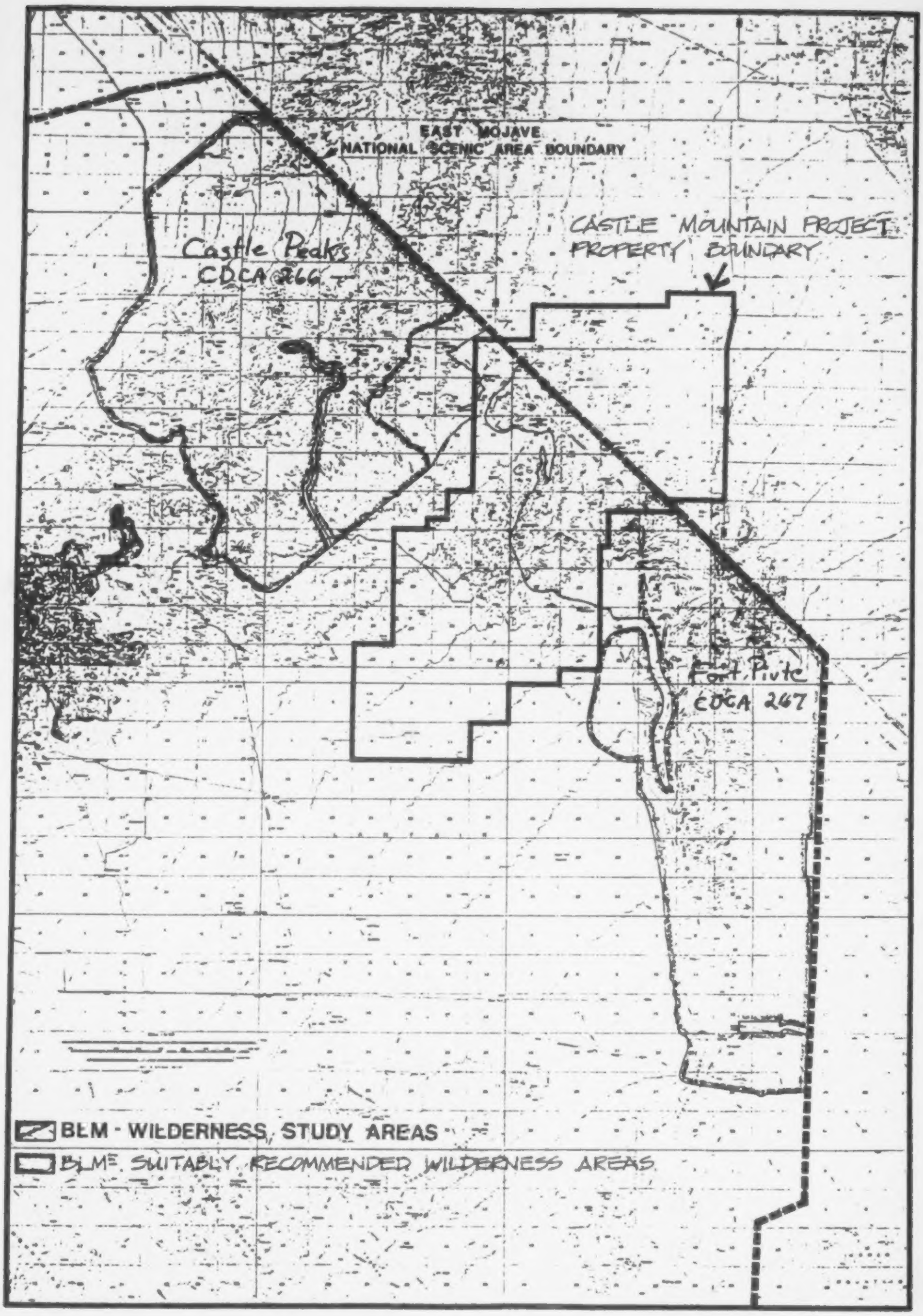

EAST MOJAVE
NATIONAL SCENIC AREA BOUNDARY
CASTLE MOUNTAIN PROJECT
PROPERTY BOUNDARY
Castle Peaks
CDCA 266
Fort Piute
CDCA 267
BLM - WILDERNESS STUDY AREAS
BLM SUITABLY RECOMMENDED WILDERNESS AREAS

CASTLE MOUNTAIN PROPERTY

VICEROY GOLD CORPORATION
CASTLE MOUNTAIN PROJECT
SAN BERNARDINO COUNTY, CA.

(NON-PROFIT ORGANIZATION)

WESTERN MINING COUNCIL, Inc.

Testimony of:

Robert A. Sanregret, A.B., M.B.A., J.D.
Representative of the Western Mining Council, Inc.

In Opposition To S.11 ("The California Desert Closure Bill")

Before The
U.S. Senate
Subcommittee on Public Lands, National Parks and Forests,
of the
Committee on Energy and Natural Resources
Senator Dale Bumpers, Subcommittee Chairman
at
Washington, D.C.
Date: October 2, 1989

Mr. Chairman and Members of the Subcommittee:

Thank you for allowing the Western Mining Council to present its views in opposition to Senate Bill 11 ("S.11").

I. INTRODUCTION

The Western Mining Council is a group of independent miners and prospectors, including individuals, small companies and many owner-operators, active throughout the Western United States mining states, including the California Desert. Most major mines and most major mineral discoveries in the California Desert (and in the Western United States) were discovered by small miners and prospectors. The large mining companies readily acknowledge that the small miner is essential to the effective continuing identification and inventorying of minerals and mineral deposits in the United States.

The proposed bill, S.11, would destroy thousands of private businesses and would, literally, make thousands of citizens homeless, by locking out of more than 8.5-million acres in the Mojave Desert in southwestern United States, primarily in California (referred to as the "California Desert"). S.11 would vastly increase the geographical area designated as "wilderness" and National Parks, and would remove over 13,000 square miles from present or future productive use. The area involved is larger than the states of Maryland, Delaware and the District of Columbia combined.

Besides locking everyone out and putting almost 9-million acres of public land under direct federal control, S.11 would destroy thousands of private businesses, residences and mining claims and would be incalculably expensive for the American public. S.11 must not be passed.

II. S.11 IS BASED UPON ERRONEOUS PREMISES.

One of the primary bases put forth by the proponents of S.11 is that the California Desert is not mineralized. This erroneous premise is based upon a 1987 statement by Senator Alan Cranston (primary author and sponsor of S.11) that "the California Desert has been intensively prospected for over a hundred years. Most studies show that there is little remaining commercially developable mineralization in the California Desert." This statement by Senator Cranston is unequivocally false.

In an effort to clarify a possible misunderstanding or mistake, Senator Cranston's 1987 false statement has been specifically called to the attention of Senator Cranston and S.11 proponents, who have neither retracted the statement nor changed S.11. Senator Cranston in testimony on July 27, 1989, before the House Subcommittee considering the identical House companion bill (HR.780) explained his erroneous 1987 statement concerning the purported lack of "mineralization" in the California Desert, by saying that "there are no mineral resources blocked out by any government agency." This "explanation" by Senator Cranston is specious, at best, because the government does not "block out mineral reserves," private companies do. And, further, when private companies do determine mineral reserves on public land, this information is proprietary and confidential. Since Senator Cranston made the above-quoted false statement 2 years ago, over $3-billion of minerals were mined from the California Desert, with full environmental controls and with reclamation of those areas where mines were closed down. Therefore, in view of the above, it is clear that this statement by Senator Cranston is a substantial and intentional misrepresentation of fact, and is one of the fallacious bases upon which S.11 is based.

Please consider the following facts:

Fact #1: About $1.6 billion of non-fuel mineral production comes from the California Desert annually (about half of California's $3+billion 1988 production).

Fact #2: Virtually 100% of the 1988 U.S. production of boron minerals was from the California Desert (over $500 million annually).

Fact #3: 97% of the U.S. rare earth mineral production comes from the California Desert. Rare earths are essential to high technology applications including lasers, high-power magnets, nuclear fusion and superconductivity research, all of which hold the key to future quantum advances in energy conservation.

Fact #4: In 1988 about 300,000 Troy ounces of gold were mined in the California Desert (approximately $120-million); and the estimated production is 400,000 Troy ounces for 1989 and 500,000 Troy ounces for 1990.

These facts directly refute the false and outrageous misrepresentation that "...there is little remaining commercially developable mineralization in the California Desert." In fact, the California Desert is one of the most highly mineralized areas in the world.

The data, production records and facts relative to the present and potential mineral production in the California Desert are readily available; and this information has been and will be supplied by myself, by the Western Mining Council and by other witnesses.

III. THE U.S. RELIES UPON PRIVATE MINERAL PROSPECTORS TO LOCATE, IDENTIFY AND "INVENTORY" MINERALS IN THE CALIFORNIA DESERT.

Many private citizen prospectors have made mineral discoveries in the California Desert that became substantial operating mines. There are hundreds of mining operations in the California Desert, each being subject to, and complying with, stringent environmental controls and reclamation requirements. The incentive for these citizen-prospectors is the U.S. Mining Law which provides an opportunity for U.S. citizens to enter public domain land and to prospect for minerals, without damaging or degrading the land. The major U.S. mining companies have stated that approximately 70% of their mines have come from discoveries by individual citizen prospectors exploring for minerals under the current U.S. Mining Law. The California Chamber of Commerce stated in June 1989 that: "Mining corporations would be crippled without the aid of the individual prospectors to help in the location and identification of future mineral deposits."

In June 1989 the American Mining Congress said:

> **"The contribution of the small miner to the search for new mineral wealth is substantial, [and]...both the executive and legislative branches of government must assure the small miners' continued access to public lands to search for, develop and produce new mineral wealth without the fear that he will be unable to enjoy the fruits of his labors."**

Private citizens explore for minerals in the California Desert today, without degrading the environment, and with full reclamation or restoration after their work is completed. The exploration and development equipment today is vastly superior to that of 10 to 50 years ago. Today's efficient methods and equipment enable mineral prospectors to locate previously hidden or unknown mineral deposits. Also, today's more efficient processing and development methods make some previously uneconomic low-grade deposits commercially feasible today.

The mineral discoveries by private citizen prospectors provide an efficient low-cost identification and inventorying of minerals in the vast California Desert, with full environmental controls. For example, it has been recently reported that private citizen prospectors have discovered commercial deposits of chromium, manganese and platinum in the California Desert, which, if true, would help eliminate our dependency upon foreign sources for chromium and other critical and strategic minerals.

There are more than ten major world-class mines in the

California Desert, each of which was discovered by an individual private prospector. These mineral deposits were discovered by people who were looking in areas not known to contain commercially valuable mineral deposits. These major California Desert mines include Molycorp's "Mountain Pass Mine" (major source of rare earths), Gold Fields Mining Corp's "Mesquite Mine" ($80+million annual gold production), and U.S. Borax Corp's. "Boron Mine"(60% of the free world's borates), to name just three.

Mineral prospecting in the California Desert under the U.S. mining law provides incentives in that if a citizen-prospector finds a mineral deposit, that citizen may develop a mine, at no cost to the public. There is no up-front subsidy by the federal government. There is no "subsidy payment" for not prospecting, nor is there payment for not producing. Obviously only a small percentage of mining exploration prospects result in profitable mines. However, the successful prospector's reward for making a valuable mineral discovery is the prospector's assurance under the U.S. Mining Law that he may develop the mineral deposit. The three major mines in the California Desert mentioned above, and many others elsewhere, would never have been discovered and developed by anyone without the incentives under the Mining Law; and there are thousands of persons today, and several in this room, who regularly go out prospecting for minerals on the public lands of the California Desert.

This valuable U.S. resource of utilizing the self-initiation, and incentive of private U.S. citizens in the identifying and inventorying of essential minerals in the California Desert, at no cost to the public, would be forever destroyed by the passage of S.11.

IV. S.11 WOULD INCREASE THE U.S. TRADE DEFICIT BY ACCELERATING THE EXODUS OF MINERAL PRODUCTION COMPANIES FROM THE U.S.

One of the most significant economic effects of S.11 would be the increase in the U.S. trade deficit caused by our importing a particular mineral from a foreign country rather than exporting it from the California Desert. At a time when our nation needs to stimulate the creation of new jobs, to improve the U.S. trade deficit and to further strengthen the economy, the passage of HR.780 would operate directly counter to all or most of this country's specific economic goals. The costs for closing mines or not allowing new mines to open would be great. We are even today overpaying for foreign minerals, because of California Desert mines having closed due to economic and environmental pressures.

Please consider the recent exodus of mines from the California Desert due to a combination of environmental and economic pressures (obviously, even before S.11), including the following:

(1) Talc. We are now overpaying for Chinese talc. In 1987 the largest talc mine in the U.S., located in the California Desert, was closed because of economic and environmental pressures, the equipment was loaded into containers and shipped to Mainland China; and today we are no longer exporting talc, but are now importing processed talc from China, to the detriment of our trade balance, local jobs and our standard of living.

(2) Steel. We are now overpaying for Japanese steel. When the Eagle Mountain Iron Mine (Riverside County, California) closed in about 1982 due to Kaiser's economic problems and environmental pressures, the Japanese immediately stopped their dumping of steel in the U.S. and raised their steel prices substantially to just below the Chicago price plus shipping. Most West Coast steel today is purchased from Japan at increased prices, unless the buyer chooses to pay an additional premium to "buy American." The tragedy of the Eagle Mountain Mine is that millions of tons of usable iron ore are lying fallow and readily available in the California Desert, while we buy our steel from Japan at inflated prices.

(3) Fiberglass. We are now overpaying for Turkish fiberglass. Colemanite is a major component of fiberglass, and was mined in the U.S. only in California until recently when the mine closed; and our major supplier of Colemanite is now in Turkey. Hopes of reopening and expanding the

California Desert Colemanite mine would virtually disappear under S.11.

(4) Wollastonite. The non-metallic mineral wollastonite plays a critical role in energy conservation by use with ceramics, paints and plastics. The production and development of known wollastonite deposits in the California Desert would be curtailed or stopped under S.11.

The above recent examples of California Desert mines forced to close through environmental regulations and economic pressure will be multiplied many-fold if mineral exploration and development were curtailed under S.11; and we would then continue to overpay for foreign minerals, Japanese steel, Chinese talc and Turkish Colemanite, further decreasing our real U.S. gross national product and decreasing our standard of living.

If the major California Desert mines were restricted or closed under S.11, the present U.S. mineral production would have to come from elsewhere-- Colemanite and boron from Turkey, talc and rare earths from China, and steel from Japan made from Brazilian iron ore. In the United States we have strict environmental controls to protect air, water and the land surface. These same controls are virtually non-existent in Turkey and China. By increasing the mining overseas, at the expense of decreased mining in the U.S., the world environment would suffer, the U.S. trade deficit would suffer, and the U.S.

would still pay more, possibly much more, for the very same minerals which would lie untouched in the California Desert.

V. U.S. GOVERNMENT 1965-1989 STUDIES AND REPORTS ON THE CALIFORNIA DESERT.

S.11 is not needed because over the last 20 years the California Desert has been the direct object of many studies, and of a comprehensive overall management plan, administered by the BLM. A brief history of the evolution of the current California Desert Plan follows:

In 1965 the BLM began an inventory of California Desert recreation land for the Bureau of Outdoor Recreation. In 1968 the BLM and the National Park Service published the first such study "The California Desert," analyzing desert recreation and its effect. In 1970 the BLM issued a report with recommendations for management of off-road vehicles. Planning guide lines were developed in 1971 and the Desert Plan Staff was authorized in 1972. In 1973 the Interim Critical Management Plan (ICMP) for motorized vehicles was issued. With public participation the ICMP was revised in 1973. The first area management plans, were issued in 1975-76 for the Yuha, Red Mountain and the El Paso Planning Units.

In 1976, Federal Land Policy and Management Act ("FLPMA") was enacted which established the 25-million acre California Desert Conservation Area ("CDCA") and the "CDCA Plan". For reference, two pertinent portions of FLPMA are quoted here:

> "Such [CDCA] plan shall take into account the principles of multiple use and sustained yield in providing for resource use and development, including, but not limited to, maintenance of environmental quality, rights-of-way, and mineral development." FLPMA, section 601(d).

> "[P]rior to any recommendations for the designation of an area as wilderness the Secretary shall cause mineral surveys to be conducted by the Geological Survey and the Bureau of Mines to determine the mineral values, if any, that may be present in such areas." FLPMA, section 603(a).

Prior to adopting the "CDCA Plan" many public meetings were held and many thousands of public comments were received. There were 21 CDCA Advisory Committee public meetings and field trips during the inventory and draft planning stages of the CDCA Plan. In February 1980 the Draft Plan Alternatives and EIS were released for public review and comment. In April-May 1980 twelve public review and comment hearings were held throughout California. More than 40,000 separate comments on the CDCA Plan were received, analyzed, and considered prior to the release in October 1980 of the proposed "California Desert Plan" and Final EIS, with appendices, for public review and comment. In October 1980 twelve more public hearings were held throughout California. In November 1980 review and analysis of additional public comment was made and the Final CDCA Plan was signed by Interior Secretary Cecil Andrus in December 1980.

In 1986 a joint study by the BLM, the California Division of Mines and Geology and the California State Mining and Geology Board, offered substantial evidence of the high mineral potential of the California Desert. As of 1989 the BLM has received mineral survey reports from the USGS and the U.S. Bureau of Mines on all of the areas preliminarily recommended as suitable Wilderness Study Areas .

S.11 calls for the immediate establishment of approximately 81 new "Wilderness Areas", about half of which have never had a mineral survey requested of the USGS or of the U.S. Bureau of Mines. S.11 ignores the over 23 years of study and planning relative to the California Desert, FLPMA, the CDCA and the known mineralized areas of the California Desert.

As a part of the California Desert research in 1973, the BLM commissioned the "Babcock Report", an investigation and authoritative report on potential damage to the desert by off-road vehicles. The Babcock Report verifies the fact that the use of the California Desert by off-road vehicles does not permanently damage or scar the desert. The Babcock Report had sat unnoticed for several years, but has recently surfaced, just in time to clarify the erroneous allegations that vehicles damage the "fragile" desert. In fact, the BLM's 1973 Babcock Report specifically concluded that the damage by vehicles to the California Desert is "negligible". This 1973 Babcock Report is available to the Subcommittee from the BLM, or the Western Mining

Council will be happy to provide copies of the Babcock Report to the Subcommittee Chairman and members.

Much of the 8.5 million acres under S.11 is not pristine wilderness, but contains existing roads specifically designated as roads by the USGS under criteria established and used for over 100 years. A "wilderness" may not exist under current law in an area containing "roads". The S.11 proponents have attempted to "administratively redefine" a "road" by attempting to delete thousands of miles at "USGS Class 4 Roads" and "USGS Class 5 Roads" from being "roads". The USGS road classifications referred to as "USGS Classes 1, 2, 3, 4 and 5 Roads" have been used by the USGS, its predecessors, and most state and federal agencies, for over 130 years. This effort to administratively redefine "roads" is discussed in a recent article "When is a Road Not a Road?", by Donald L. Fife and Dr. Ralph Pray.

VI. S.11 WOULD COST THE U.S. ECONOMY AND THE U.S. PUBLIC MANY BILLIONS OF DOLLARS.

Please consider the following tremendous costs to the U.S., and to the U.S. citizens, which would result if S.11 were to become law:

Cost #1 -- Increased Prices of Minerals. The cost of many minerals, rare earths and critical minerals will rise because of the disappearance of the supplies and identified future sources of these minerals from California Desert.

The U.S. would be subject to the uncertainties of unreliable foreign sources and cartels for many essential and critical minerals. Just as we were in the oil "shortage" of the 1970's and we are already paying excessive prices for steel, fiberglass, and talcum powder. Do not make it worse by enacting S.11.

Cost #2 -- Fifth Amendment "Takings." Billions of dollars of eminent domain awards will be due to the present owners when California Desert mining claims and businesses are destroyed or impaired because of S.11 and the "regulations" which would implement the law. The U.S. government would be looked to for compensation for these inverse condemnation takings under the Fifth Amendment, as reaffirmed in recent U.S. Supreme Court decisions. For example, in 1980 a federal lease which had been restricted by wilderness protection regulations was held to be a mere "shell" lease, and a compensable taking; and, California Desert existing mining claims and businesses which are subjected to new impairing restrictions would also be "takings" of real property requiring compensation under the Fifth Amendment.

Cost #3 -- Non-Compensable Losses; Homelessness. Thousands of U.S. jobs would be lost and persons made homeless by S.11. Thousands of private residences and businesses, large and small, would be hurt or destroyed by

S.11. Examples are: California desert businesses and homes, tourist and recreation businesses, ranches, small family mining businesses, private exploration and mining development companies, related service and support businesses, vehicle sales and service, and, of course, the thousands of future prospective recreational and business users of the California Desert. Most these private losses would be non-compensable under the Fifth Amendment.

Cost #4 -- Dependence Upon Unreliable Foreign Sources for Minerals. A most serious "cost" of S.11 would be the increased dependence of the United States upon foreign and unfriendly sources of critical and strategic minerals, and rare earths which are indispensable to keeping our dominant position in the critical areas of military hardware, space technology, nuclear fusion and superconductivity. The U.S. would be subservient to unreliable foreign mineral sources, and we would be unable to keep our "edge" if an unfriendly foreign cartel chose to not sell us their needed critical minerals or rare earths. No dollar value can be placed upon the U.S. retaining its position as the world leader in research, security, high-technology and national defense. The list of affected minerals is long and varied, including: Iron ore, rare earths, boron, palladium, the other platinum group metals, precious metals, talc, titanium, chromium, etc.

VII. CONCLUSION:

S.11 should not be enacted because it would lock everyone out of 8.5-million acres of the California Desert, because S.11 would destroy thousands of businesses and homes, because S.11 has a tremendous unnecessary cost, because S.11 would increase the U.S. dependence upon unreliable foreign mineral sources, and because S.11 would increase the U.S. trade deficit. There presently exists the effective California Desert Management Plan under FLPMA, administered by the BLM, which was over 20 years in the making, and which controls the multiple use and reclamation in the California Desert. The CDCA Plan works. If it ain't broke, don't fix it.

S.11 would have a tremendous unnecessary tangible and intangible cost to the country and to U.S. citizens. The U.S. does not need and cannot afford S.11, and S.11 should not be enacted.

Thank you for allowing the Western Mining Council to present its views in opposition to S.11.

ROBERT A. SANREGRET
Western Mining Council, Inc.
316 W. 4th Street, Second Floor
Santa Ana, CA 92701
(714) 547-8451

CALIFORNIA DESERT PROTECTION ACT

STATEMENT OF R. GENE DEWEY
PRESIDENT, MOLYCORP, INC.
MEMBER, CALIFORNIA MINING ASSOCIATION

BEFORE THE

PUBLIC LANDS, NATIONAL PARKS AND FORESTS SUBCOMMITTEE
OF THE COMMITTEE ON ENERGY & NATURAL RESOURCES
WASHINGTON, D.C.
OCTOBER 2, 1989

The mining industry has become increasingly familiar with the rhetoric of the proposed California Desert Protection Act, known in the 101st Congress as S. 11. Unfortunately, the emotions of this matter have clouded a reasonable scrutiny of the bill. Most importantly, it has obscured the cost of these actions to the American consumer and the lifestyle enjoyed in this country.

At stake in the California Desert is this country's richest, most diversely mineralized region. More than 65 mineral commodities are known to occur in the Desert, some vitally important in national and international markets, as well as for critical and strategic purposes. Those commodities are not duplicated in content, quality or quantity in another location in the world. The ability of some of this country's most prominent mining companies to keep producing these materials is threatened by this legislative proposal.

Unfortunately, the initiative and creativity shown by mineral producers in producing resources from such a demanding physical and political environment is too often branded as self-serving and exploitive. The industry's successful commitment to environmental sensitivity is disregarded. The very essence of exploration and development of minerals--access to properties for study--is ignored.

As a basic industry, mineral exploration and development is delicately woven into the supply and demand which drives the economic system. Discovery of material may be stimulated by market opportunities, or -- as in the case of lanthanides -- discovery of material creates new needs. A forecast of the material needs and economic conditions of the coming decades is beyond any realm of possibility.

Exploration is an on-going dynamic process. No single company or source can document every mineral site. As an example, I can report that a new yttrium deposit in the Mojave Desert is under consideration in Riverside County in a program unrelated to Molycorp. Also, over half of California's known geothermal resource areas are in the California Desert. Unocal's Geothermal Division and other companies have interests in many prospective areas within the boundaries proposed by S. 11.

The guiding force of geology is one which should be considered by all of those with responsibility for land use decisions:

> The absence of evidence is not evidence of absence.

The minerals industry is constantly being changed by the dynamics of both economics and technology. Gold for example now sells for $370 per ounce as compared to $150 per ounce in 1977. A deposit would have had to have been two and a half times as rich then to be mined as is needed now. Technological advances in exploration, equipment and processing techniques have made deposits economic today that could not be mined two decades ago.

Thirty years ago Mountain Pass had little or no value. Today many high-tech industries depend upon its minerals. The point is, no one can predict which minerals will be valuable or useful in the future. If these lands are withdrawn from mineral entry and multiple use it will preclude any future mineral discovery or extraction from them.

There are many points about this legislation's impact on the desert's mineral production potential. To mention just a few:

-- Mining is compatible with the environment. The Desert Plan requirements, coupled with the state of California's stringent rules, create the most intense regulatory framework for mining operations in this country.

-- Mineral resources are not a "bankable" option for the future if they cannot be discovered. Availability of tomorrow's resources rests exclusively on today's exploration.

-- Minerals can only be taken from where they are located. They cannot be planted, created by artificial means or moved without mining.

-- California Desert producers have documented their pending depletion of reserves and forecast future commodity demands which will not be met without access to the Desert's mineral deposits. That direct economic impact on the people of the desert and the people of Southern California also is documented.

-- Language purporting to safeguard the mining industry's ability to operate by recognizing "valid and existing rights" is shown by example and legal precedent to be ineffective.

Molycorp believes that the close proximity to a new National Park would severely impact its operations. The proximity problem presents issues for the existing facility in areas of air quality, the concept of degradation of scenic vistas and in noise generated outside the Park. The proposed Park boundaries are less than 1 1/2 miles away from the mine property.

As a practical matter, future exploration will be eliminated inside park boundaries and new mining activities precluded as well. I am not aware of any mine in operation in a park or monument even though the legislation that created several parks contained specific guarantees similar to those in S. 11.

-- The mining industry recognizes the need for special designations to protect unique areas of environmental sensitivity. The industry ultimately accepted the BLM Desert Plan process. As predicted in 1980, the Desert Plan is a difficult management program for minerals extraction.

-- An area as vast as the California Desert, located in such proximity to Southern California urbanized regions, deserves and requires a dynamic management program that is publicly responsive.

I offer you the cooperation of California's mining industry to clarify any material concerning the devastating impacts of this proposed legislation on our ability to continue producing the materials upon which this society is dependent.

My company, Molycorp, Inc., has a specific and perhaps unique interest in this legislation. Molycorp, Inc., a wholly-owned subsidiary of Unocal Corporation, mines and processes lanthanides or rare earths at Mountain Pass, California. The operation is located on the northeastern boundary of the proposed Mojave National Park about 50 miles southwest of Las Vegas, Nevada. The unique orebody at Mountain Pass provides the United States with a domestic supply of lanthanides for many defense and high technology uses as well as a significant export business to help the balance of payments. Molycorp is the only primary producer of lanthanides in the non-Communist world.

Molycorp has four specific concerns regarding the effect of S. 11 on our Mountain Pass lanthanide mine which we submit for the hearing record of the subcommittee. These four concerns are the maintenance of a buffer zone around the mine and the claim block, the safeguarding of the mine's existing water supply and the continuance of our pipeline rights-of-way.

The attached map shows Molycorp's recommendation for modification of the proposed Mojave Park Boundary to accommodate our concerns on the issues of buffer zones, water permits, rights-of-way, and scenic vistas/air quality.

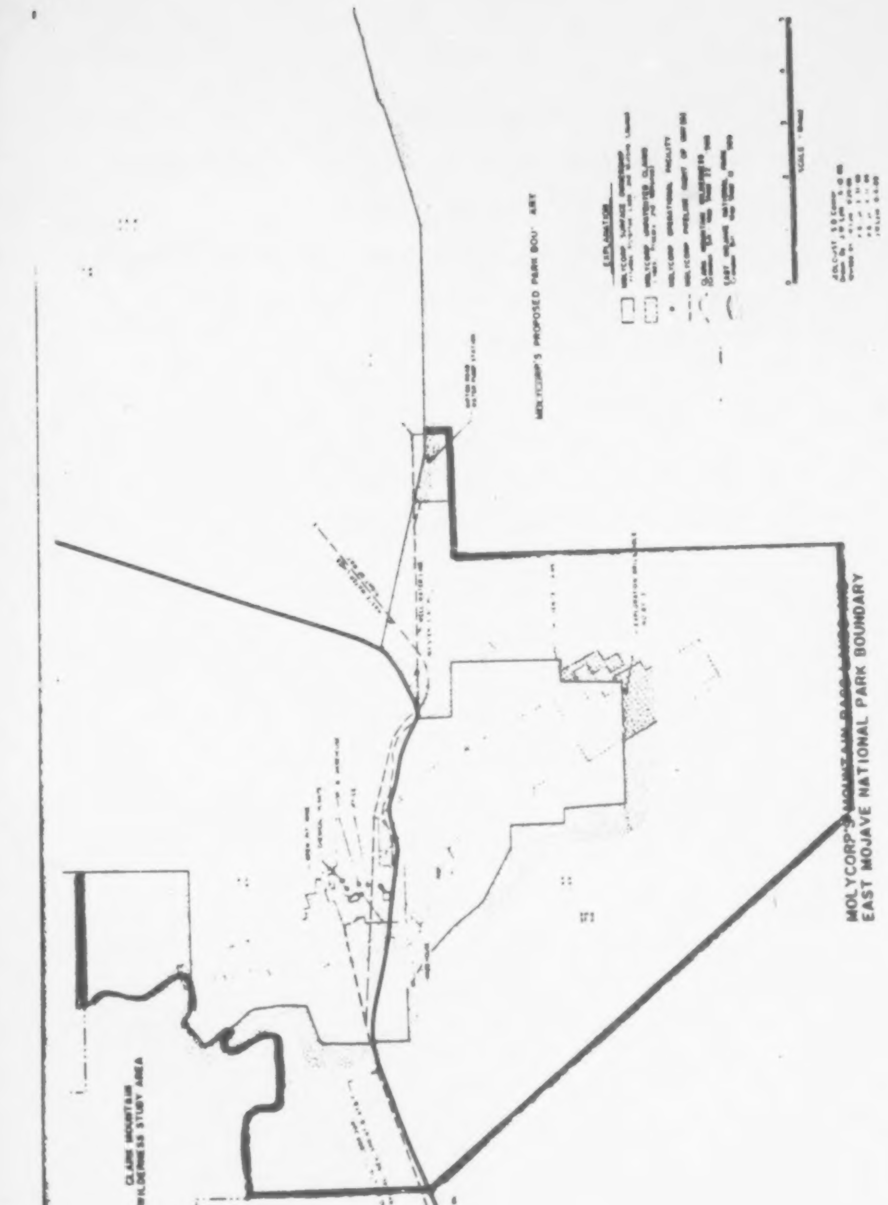
A. Buffer Zone -- The present boundary of Mojave National Park takes 50 acres from our northern claim block and 1500 acres of our southern claim block and includes these lands inside the Park. Currently active mine rock dumps are only 1.3 miles from the boundary as drawn and is too close to an active work site. This raises issues for the existing facility in the areas of air quality, the concept of degradation of scenic vistas and in noise originating outside the Park. Moving the boundary approximately two miles on the north, 2-3/4 miles on the west, and four miles on the south would satisfy our concerns for a buffer zone. Moving the boundary simply allows BLM management of a corridor of lands between the operating property and the Park.

B. Water Permits -- As currently drawn (along Nipton Road), the Park boundary includes 548 acres of our privately owned land which is the source of our underground water for processing at the mine. This wellfield includes 8 wells. Although S. 11 is silent on the issue of water and presumes the courts will determine the issue after the Park has been legislated into existence, Molycorp is very concerned about the protection of our water permits. It is not a satisfactory solution to leave this issue unresolved or subject to litigation. To provide guaranteed water supplies for the mine's continued operation, we request a boundary change so Molycorp will be able to retain its surface ownership of the land overlying the underground aquifer.

C. Rights-of-Way -- S. 11 as written does not include pipeline rights-of-way for water or processing water lines. Under Sec. 411 of the Utility Rights-of-Way portion of S. 11 (page 40) it says: "Nothing in this Title shall have the effect of terminating any validly issued right-of-way or right-of-use within the Boundary of the Park issued, granted, or permitted for "...

under item b. "pipelines for the transmission or distribution of natural gas or oil." Water Rights-of-Way are not protected. Molycorp has three BLM utility rights-of-way that roughly parallel I-15 and are inside the proposed Park boundary and are necessary for the operation of the mine. Well water from the Shadow Valley area 10 miles west of Mountain Pass is pumped via pipeline and right-of-way through a six-mile long portion of the Park. Water from the Nipton Road wellfield is pumped via right-of-way through 6 miles of Park, east of Mountain Pass. Process waste waters from the mine traverse a three-mile section of the Park via a BLM right-of-way to our Ivanpah Evaporation Pond five miles north of the Park. Molycorp requests inclusion of water and waste-water pipeline rights-of-way under Sec. 411, part b.

D. Scenic Vistas/Air Quality -- There are several issues concerning compliance with scenic vista regulations and air quality standards that need to be addressed by the Committee. For example, the Mountain Pass mine will be visible from Clark Mountain, which is within the proposed boundary of the East Mojave National Park. Certainly, the intent of S. 11 is not to shut the mine down. Therefore, appropriate language should be added to the legislation to address the protection of prior existing rights.



MOLYCORP'S PROPOSED PARK BOUNDARY
EXPLANATION
SCALE
CLARK MOUNTAIN
WILDERNESS STUDY AREA

MOLYCORP'S MOUNTAIN PASS LANDS AND
EAST MOJAVE NATIONAL PARK BOUNDARY

Statement of
The Metropolitan Water District of Southern California
to the
Subcommittee on Public Lands, National Parks and Forests
Committee on Energy and Natural Resources
United States Senate
on
S.11
the California Desert Protection Act of 1989
October 12, 1989

The Metropolitan Water District of Southern California respectfully submits the following comments on S.11, the California Desert Protection Act of 1989, introduced by Senator Alan Cranston. If enacted, this legislation would preserve 8.5 million acres of California desert in newly designated wilderness areas and national parks.

Metropolitan, a public entity, owns and operates the Colorado River Aqueduct. The aqueduct transports water 242 miles across the desert from Parker Dam on the Colorado River to Lake Mathews, the terminal reservoir in Riverside County, for distribution throughout the densely populated coastal plain of southern California. This region, extending from southern Ventura County to the Mexican border and populated by nearly 15 million people, depends on imported water to meet more than half of its current water demand. The Colorado River Aqueduct accounts for more than half of this imported supply, or roughly 34 percent of the region's total current water demand.

The facilities required to move water through the aqueduct system include a field headquarters at Gene Village near Lake Havasu, two regulating reservoirs near this facility, five pumping stations, 54.5 miles of conduit, 63 miles of open, concrete-lined canal, 90 miles of tunnels varying in length from 338 feet to 18.3 miles, 324 miles of high power transmission lines, microwave communication sites, access roads, small runways for patrol aircraft and other appurtenant features.

The Metropolitan Water District was formed in 1928 in order to increase the region's reliable water supply. Once formed, it moved quickly to construct the Colorado River Aqueduct and related facilities and began delivering Colorado River water to southern California in 1941. The aqueduct has been operated continuously for nearly 50 years and is a key feature in meeting future water demands of the fastest growing region in the United States.

The lands used in conjunction with the aqueduct are owned in fee title by Metropolitan pursuant to the Act of Congress approved June 18, 1932 (47 Stat. 324), which also granted Metropolitan the right to take from any public lands, within limits designated by the Secretary of the Interior, stone, earth, sand, gravel and other materials of like character necessary or useful for purposes of the aqueduct.

Pursuant to the 1928 Boulder Canyon Project Act (43 U.S.C. §§617-619b, as amended), Metropolitan also owns rights-of-way for the use of public and reserved lands of the United States necessary or convenient for the construction, operation, and maintenance of main transmission lines, which carry electrical energy from the power plant at Hoover Dam for operation of the Colorado River Aqueduct. (Id. at §617d(d)).

It appears from maps setting forth the locations of the land designations in S.11 that several of the proposed Wilderness areas and park additions may overlie some of Metropolitan's desert lands and/or facilities. Examples of possible conflict are as follows:

1. **Joshua Tree National Park additions** - Aqueduct, transmission line, airstrip, microwave facilities, and pumping plant
2. **Whipple Mountains Wilderness** - Aqueduct
3. **Old Woman Mountains Wilderness** - Transmission line
4. **Bigelow Cholla Garden Wilderness** - Transmission line
5. **Mojave National Park additions** - Transmission line
6. **Big Maria Mountains Wilderness** - Microwave facility
7. **Chuckwalla Mountains Wilderness** - Microwave facility
8. **Mecca Hills Wilderness** - Microwave facility
9. **Chemehuevi Mountains Wilderness** - Transmission line
10. **Rice Valley Wilderness** - Wasteway area

The precise extent to which Metropolitan's facilities have been included in the land designations in S.11 will not be determined until their location is compared to the official maps setting forth the land designations.

While Metropolitan has taken no position on S.11, retention of the properties and rights granted to Metropolitan by the 1932 and 1928 Acts is essential to its continued operation of the Colorado River Aqueduct. It is therefore imperative that this legislation clearly provide that Metropolitan's continued operation of and access to the aqueduct, transmission lines and related facilities will not be impaired. Metropolitan seeks only to preserve the status quo. It does not intend to use the 1928 and 1932 acts to claim additional rights to the public lands designated by S.11.

A key issue in designating these desert lands as wilderness or national parks is to protect them from damage. The properties owned by Metropolitan for the operation of the aqueduct are, in fact, well protected and have been since 1932. Metropolitan has been and continues to be an excellent steward of these properties and, because of its constant surveillance, has prevented their degradation and misuse. For example, Metropolitan routinely conducts ground and air patrols of the aqueduct and related facilities and maintains these properties to conform to the surrounding desert. Moreover, Metropolitan's three remote pumping plants in the desert between an area east of Palm Springs and west of Gene Village are staffed by employees who live onsite with their families. These small populations have prevented the misuse of their respective facilities and their vigilance assists in maintaining these areas. Notwithstanding these contributions towards the management of the area, Metropolitan will, of course, allow unrestricted access to representatives of the federal and state governments involved in the administration of the California Desert Protection Act.

Therefore, it is imperative that Metropolitan's properties and rights obtained pursuant to the 1928 and 1932 acts be unimpaired by S.11, and amending the bill to afford this protection to Metropolitan would not be inconsistent with the purposes of the legislation due to the stewardship Metropolitan currently provides. As to the form of this amendment, Metropolitan respectfully requests that S.11 be amended to include the following provision, which (1) generally preserves the properties and rights Metroplitan has obtained pursuant to the 1928 and 1932 acts, and (2) removes those acts as a basis for Metropolitan to claim additional rights to the lands covered by S.11:

FEE LANDS AND RIGHTS OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Sec. 608 Nothing in this Act shall affect the lands and rights granted to the Metropolitan Water District of Southern California pursuant to the Act of June 18, 1932 (47 Stat. 324) or any rights to use public and reserved lands of the United States obtained by Metropolitan pursuant to the Boulder Canyon Project Act (43 U.S.C. §§617-619b): Provided, That none of the lands designated as wilderness or included in the National Park System by this Act shall be granted to Metropolitan pursuant to the Act of June 18, 1932, nor shall the use of such lands be granted to Metropolitan pursuant to the Act of June 18, 1932 or authorized pursuant to the Boulder Canyon Project Act after the date of enactment of this act. All existing means of access to lands and rights-of-way granted or authorized to Metropolitan are hereby preserved, as are all existing means of surveillance of such lands and rights-of-way, including aerial surveillance.

In addition to requesting protection for existing facilities, Metropolitan requests that the legislation also clearly allow for the future development and operation of a groundwater storage and recovery program in what is known as the East Mesa in the Imperial Valley. The feasibility of such a program is presently being studied by the Colorado River Board of California. If feasible, the program would include (1) the storage of excess Colorado River water supplies in the groundwater basin of the East Mesa, with recovery of the water at a time when California is in need of additional Colorado River water supplies, and (2) some mining of water already stored. California faces shortfalls in its Colorado River supplies in the near future and it is imperative that programs such as the East Mesa program be developed, if feasible, to conserve an already limited supply.

It appears that some of the proposed wilderness designations in S.11 would include lands which are adjacent to the potential East Mesa project. While it is not expected that physical facilities would have to be built within those wilderness areas, it is possible that the groundwater storage and recovery program might have indirect commingling effects on any groundwater resources underlying those areas. Consequently, S.11 should provide that the development and operation of the potential East Mesa program not be impaired by the designation of lands as wilderness. We propose that the following language be added to section 103 of S.11 on administration of wilderness areas:

> Provided, however, that nothing in this Act is intended to or shall be construed to restrict the development and operation of any groundwater storage and recovery programs in areas in the vicinity of designated wilderness areas that do not require the installation of surface facilities in such areas.

The California desert areas generally described in the Desert Protection Act are, indeed, worthy of protection. The Metropolitan Water District takes pride in the fact that its 50-

year stewardship over the lands under its protection has resulted in the maintenance of these lands in a manner consistent with the goals of Senator Cranston's bill.

Statement by Donald Fife
Geologist, Non-Renewable Resource Consultant
National Inholders Association

SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS
AND FORESTS
OF THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

Hearing: California Desert Protection Act, S-11.
MONDAY, OCTOBER 2, 1989

We appreciate the opportunity to be here today and share our concerns about the dangerous, short sighted and economically damaging legislation known as the California Desert Protection Act (H.R. 780), and its companion Senate Bill S-11.

National Inholders Association represents those people owning private land and other interests within federal boundaries including ranchers, homeowners, miners, water right owners and various types of special use permittees on the California Desert. NIA has over 15,000 members in 50 states and 200 federal areas. There are an estimated 1.2 million inholders nationwide in addition to more than 1 million mining claim owners and small explorationists.

I am Donald Fife. I have lived and worked on the California Desert all my life beginning with my father's water well, excavating, and mining business in the desert. I have been involved with desert communities and the critical economic balance that allows these communities and their citizens to survive. Continued multiple-use of the desert is esssential to their survival.

I received a Bachelors Degree (1962) and Masters Degree (1968) from San Diego State in Geology. For the past 20 years, I have been a geologist with the California Department of Water Resources, California Division of Mines and Geology, and worked as a consultant in private industry and local, state, and federal government. My professional life has afforded me an extensive level of involvement and experience on the California Desert.

I am a member of numerous professional organizations, and past president of the South Coast Geological Society. [illegible] Chairman of the Mining Advisory Board for the National Inholders Association and the Governmental Affairs Committee for the American Institute of Professional Geologists. Since 1981 I have been the Secretary of Interior's appointee for geology, energy and minerals (non-renewable resources) on the Bureau of Land Management's California Desert Multiple-Use Advisory Council which advises on planning and federal regulation for over 25 million acres of land on the Mojave and Colorado Deserts.

SUMMARY STATEMENT:
OPPOSITION TO CONGRESSMAN MEL LEVINE'S HR 780 TO CLOSE VAST PORTIONS OF SOUTHERN CALIFORNIA'S DESERT AND NATIONAL FOREST LANDS TO SOCIETY.

After a careful review of this legislation and its impact on society, we find it will have negative effects on the environment and quality of life, as well as an adverse economic impact on the nation.

We are gravely concerned that this legislation will:

1. Eliminate the existing California Desert Conservation Area (CDCA) Plan which is a model of conservation-preservation and multiple use. The wishes of the public have been incorporated through public workshops and the public hearing process. More than 9,000 citizens from all walks of life participated. This has generaged 40,000 plus written comments and suggestions on the current conservation-preservation plan for the area.

H.R. 780 totally ignores the citizen participation and good will that went into the plan. The proposed legislation also ignores the state and local government planning agencies input and coordination that went into the existing plan as well as millions of tax dollars which were spent to produce and implement it (approximately $65 million to date).

This 1980 plan was a carefully conceived compromise between preservation and wise use conservation. The wild lands in the California Desert are now managed in a very park-like manner. But the Desert Conservation Area Plan, originally drafted with the assistance of the Western Regional Planning Staff of the National Park Service, wisely preserves the ranching, mining, and rural character that makes this area so attractive to visit.

Two to four million acres are already managed as Wilderness or are in the process of becoming Wilderness. This existing conservation plan presently leans heavily toward the preservationist element. We see no compelling reason to tamper with this plan which was approved and signed off on by both Democratic and Republican Administrations in 1980 and 1981.

2. The California Desert is the most important source of raw mineral commodities supplying our manufacturing and construction industries which build and maintain California. Millions of dollars in local, state and federal taxes and hundreds of thousands of jobs in California depend on the cement, wallboard, cosmetic raw materials, plastic, rubber, explosive additives, mineral fillers, pigments, mineral fertilizers, detergent bases, fiberglass, pharmacueticals, industrial chemicals, abrasives in sandpaper, cleansers and toothpaste, chemicals for smog control and thousands of other uses.

While of some of these non-renewable resources might be found in other parts of the world, the cost of transportation would tend to double or triple their cost and hundreds of thousands of jobs and much of the local tax base could be exported over seas. Most of the extra cost would wastefully consume petroleum and even add to air pollution and CO_2 content of the atmosphere! The proponents of this legislation have publicly implied that there is little remaining mineral or energy potential in the California Desert, but according to official state and federal resource agencies, it is one of the nation's most highly mineralized and productive regions.

In addition, solar, wind, and geothermal resources are just coming into importance in the desert. The potential for hydrocarbons has not been fully evaluated, especially along the overthrust belt in the eastern desert and in the deep sedimentary basin between El Centro and Palm Springs.

According to the state resources agency, the desrt generates in excess of $10 billion annually to the economy of California and the nation. To sustain this productivity, extensions of existing deposits and new deposits must be found in the very areas that H.R. 780 proposes to forever lock up. The cost of government, building a new home, or doing business in California will surely increase if this poorly conceived legislation passes. H.R. 780 would add to the current U.S. trade deficit by driving mineral producers from the California desert.

3. H.R. 780 would severely limit society's access to the nation's only known producing province of rare earth lanthanides within the proposed Mojave National Park. This deposit currently produces about 97% of the Western World's rare earth elements such as europium which activites yttrium to produce the red color in television sets. More importantly, according to the

TIME magazine article, "The Superconductivity Revolution," dated 5/11/87, and other published sources, these rare earth elements are the source of a quantum leap in technology that promises:

A. A practical pollution free electric automobile which could reduce smog by up to 50% in American urban centers like the Los Angeles Basin;

B. A revolution in energy conservation by saving all of the electricity currently lost in power transmission lines;

C. Create a breakthrough in bringing the world clean "fusion" energy;

D. A dramatic cost reduction in devices used for cancer detection making them more available to the average citizen.

H.R. 780 will leave the existing rare earth mine open to deplete the ore reserves, but will lock up the known geologic environments favorable for new discoveries needed to convert society to this new technology. The only other known principal source of these high tech elements is in mainland China.

4. The direct and indirect costs of passing H.R. 780 will be enormous. There are thousands of inholders and hundreds of thousands of acres of inholdings in the proposed parks and Wilderness areas. As recent Supreme Court decisions have confirmed, each inholder must by law be compensated for the taking of his or her property. Numerous individual mineral deposits, including several thousand patented and unpatented mining claims, will have to be evaluated and purchased. This item alone could run into the billions of dollars.

5. The loss of grazing will be significant. Stockmen have grazing permits and have made large investments on the federal land. They own private rights such as water rights and ditches, range improvements such as fences and stock handling facilities in addition to their significant investment in the grazing permit itself through the increased price they paid for their base land.

They made large investments in water improvements and range improvements, often at the request of the BLM, and these investments must be compensated for. Otherwise there is a "taking" of private property rights. H.R. 780 says that grazing will be removed after the current permit has expired, thus giving no recognition to the valuable effort, private enterprise and investment made by these ranching families over many years.

Without this private investment and enterprise on the desert, wildlife and public access will suffer. It is the stockmen as well as the miner who makes significant water improvements that allow the visitor to obtain badly needed water. Various species of animals drink where the stock watering facilities may be the only water for many miles. Should the wilderness designations included in H.R. 780 become law the vast network of remote watering "holes" cannot be maintained and thousands of animals including big horn sheep, will die.

Rain frequently comes all in one storm or storm season with several nearly rainless years in between. "Average rainfall" ranges from less than 4 inches per year in some desert valleys to nearly 15 to 20 inches per year on the highest mountain ranges. Commonly, "several years" worth of rainfall comes in a matter of hours.

The resulting erosion and deposition of surficial "soils" is further "reworked" by wind creating dust and sand storms that have in places, produced spectacular sand dunes. . . and significantly higher auto insurance rates because of "sandblasted or pitted windshields!"

Temperatures in the desert vary from below zero in the higher elevations in winter, to more than 130 degrees in summer at lower elevations. Hiking in warmer months can be life threatening, as you can perspire from a half a gallon to a gallon of water or more per hour. *YOUR VEHICLE IS YOUR LIFE SUPPORT SYSTEM IN THE CALIFORNIA DESERT.*

The water supply in the California Desert is currently being over drafted (pumped) and additional external supplies are virtually non-existent. Irrigated agriculture is shrinking in many areas because of the drying up of ground water sources. Examples are Antelope Valley, Mojave River Valley, Lucerne Valley, and Twenty Nine Palms. Over the past few decades, many tens of thousands of acres have been reclaimed by the desert!

The California Desert has a population of about a half million persons mostly concentrated along the western edge of the desert in Antelope Valley, Mojave River Valley above Barstow or in the Coachella-Imperial Valley near the Colorado River. The principal urban centers are: Lancaster-Palmdale; Victorville; Barstow; and Palm Springs-Indio. The growth of these areas is limited by available water resources and current growth is generally limited by conversion of agricultural water resources to urban uses.

In reality, the competition for existing water resources in the privately held lands and the absence of significant available water resources on the remaining federal lands assures us that the currently isolated desert is not threatened by urban or other development. Many isolated desert towns have less population today than they did years ago. The natural forces of nature have nearly erased evidence of some, such as Dale, Skidoo, Darwin, Amboy, Ivanpah, Ballerat, Death Valley Junction, Olancha, Cerro Gordo, and Keeler. At Eagle Mountain, 3,700 people lived 7 years ago. Today there are only about 10!

Approximately 6.5 million acres of the desert are in private ownership and about a 1/2 million acres are state lands belonging to the State Teachers Pension Fund. About 3 million acres are isolated military bases or ranges used by the Air Force, Army, Marines, and Navy and the military of the western allies. Much of the military area is defacto wilderness because of the wide "buffer zones" needed to protect national security and the public from dangerous live fire maneuvers and ordinance testing.

Space shuttles are built in Antelope Valley and return from orbit on the nearby Rogers Dry Lake at Edwards AFB. The Stealth (B-2) Bomber is also assembled and tested here. Military reservations, as well as BLM lands, are used for low level training missions and radar avoidance tactics.

Approximately 2.5 million acres are national monument and state park lands in Anza Borrego State Park, Joshua Tree and Death Valley National Monuments. About 90% of these lands are currently administered as Wilderness and access is restricted to foot traffic. Many existing roads have been closed allowing the natural forces of rain and wind to restore them to a "natural" state.

Although managed as Wilderness, no detailed mineral or energy assessment of these lands has been made or is planned. It should be noted that the boundaries of the national monuments and military reservations are not arbitrary as specific boundaires were drawn to exclude known mineralized areas or mines and internal "buffer zones."

The largest remaining portion of the California Desert is the 12.5 million acres of public land managed for multiple-use under the California Desert Conservation Area Plan. This compromise between preservationists and conservationists (wise use) came in 1980 and resulted from four years of public involvement—9,000 individuals and 40,000 plus written comments and suggestions; $8 million in federal funds and about $5 million annually have already been invested by the taxpayer to administer the management of the Conservation Area.

This plan favors the protectionist philosophy. Presently, the plan preliminarily recommends 1.9 million acres for Wilderness closure. Some of these areas appear, to have high potential for valuable minerals.

According to the U.S. Bureau of Mines, in 1988 the California Desert Conservation Area produced conservatively, $1.5 billion in raw mineral commodities. The California State Resources Agency indicates this generates about $10.5 billion in new wealth each year to the national economy.

While H.R. 780 proponents declare there will be no effect on mining (non-renewable resources), the most critical industry in the California Desert, it will in fact condemn this industry to a slow death as present reserves are consumed and the most promising geologic environments for extensions of existing ore bodies and new discoveries are closed to mineral entry by new national parks and Wilderness areas.

H.R. 780 will directly threaten: 1) more than 20,000 jobs related to mining; 2) the mining claim holdings of the 6,000 members of the AFL-CIO Steelworkers Health Insurance-Pension Fund (Cushenbury Trust); 3) the mining claim holdings of the 7,000 employee owners of Kaiser Resource Corporation (struggling out of Chapter 11 bankruptcy); and 4) the unevaluated mineral estate on state lands pledged to the $10 billion shortfall of the California State Teachers Fund (more than 200,000 members).

THE MYTH OF THE "FRAGILE" DESERT

It is widely perceived by the proponents of H.R. 780 that the California Desert is "fragile." To most anyone who has lived and worked in the desert over a long period of time, this is a very debatable perception. Most long term residents of the desert know the vast majority of the desert surface is soft, erodable, alluvial soil, covering up to as much as 70% of the CDCA.

About 12,000 years ago, during the Pliestocene Ice Age of North America, the Pennsylvania-sized area known as the California Desert had forested mountain ranges and fertile grasslands teeming with antelope, bison, camels, and wooly mammoths.

The climate was wet compared with today; rainfall was 20-40 inches per year or more, instead of the 4-10 inches per year the area gets today. Rich soils existed, protected by a canopy of forest, dense chaparral, or grasses covered the mountains and valleys.

About 11,000 years ago, global warming (green-house effect) melted the North American ice sheet and the area dried out. As the climate changed, spectacular fires (dwarfing the 1988 fires at Yellowstone) swept across the region, stripping the mountains and valleys, exposing their "sensitive soils" to the erosive effects of intense rainfall.

Landslides, mudslides, debris flows and mud flows flushed these organic-rich soils into internally draining basins or down the Colorado River into the Gulf of California. Soils that didn't end up in the Gulf of California now fill the dry lake basins of the California Desert. "Soils" with classicial A, B, C, and D horizons, have not existed in most places in the California Desert for over 10,000 years! This has been confirmed by numerous studies of the area. Presently it is difficult or impossible to find more than a poorly developed "A" or "B" horizon, because the lack of vegetative cover does not protect the surface from intense rainfall. This is confirmed by Dickey, et.al. (1973) A Study of California Desert Soils Subject to Recreational Vehicle Use in the CDCA (see appendix). This study was one of the few truly comprehensive scientific studies on the California Desert. The scientific team consisted of a professional geologist, soils engineer, and a soil scientist, studying 10 widely scattered sites in different terraines and micro climates of the CDCA.

The desert soil is frequently subject to flash floods, debris and mudflows, and rillwash. These factors generally prevent development of mature soils. Thus, the majority of the desert is subject to natural restoration of the surface by frequent reworking and burial (deposition) by cloudbursts and windstorms. Rainfall is the controlling geologic factor for the expected duration of most vehicle tracks and shallow surface disturbance in most areas. Proof of this is the natural restoration of the military impacts that covered the desert at the end of World War II. Millions of troops trained and rotated through almost every corner of the desert for 3.5 years. Only a small percentage of their enormous impact can still be seen on the ground in most areas where they formerly trained.

Fortunately, we cannot now see the millions of bombcraters, thousands of miles of vehicle tracks, and other military impacts that have been eroded or covered by the action of wind, rainfall, and flowing water. Frequently, the only way to observe relic tracks or bomb craters is through special high altitude photography. However, many misinformed visitors to the desert photograph the remnants of former impacts and display these photos as "proof" the desert never "heals" or restores itself.

For example, General Patton had more than 38,000 armored vehicles, their support equipment, and up to 190,000 troups at a time on continuous maneuvers in the eastern Mojave Desert for 3.5 years during the 1940's. On isolated, upland surfaces some tracks remain, however, flash floods, blown sand and revegetation on dynamic alluvial fans have destroyed most of the original disturbance. The millions of bomb and shell impact craters were stripped of all scrap metal shortly after WW II.

Each impact made a hole in the desert, the wind deposited sand and seeds in these depressions which filled with water during the first cloudburst. Each impact became a "flowerpot." In many places the wind deposited sand around the new clump of sagebrush. . . ultimately replacing the original depression with a small mound capped with sagebrush!

General Patton's maneuver area extended from the city limits of Las Vegas, Nevada, to Indio, California eastward to the Arizona side of the Colorado River. However, most of the western Mojave Desert from 29 Palms to Antelope and Owens Valleys was also impacted by the military services.

Aside from the natural restoration of bomb craters, targets, and vehicle tracks, there is spectacular natural restoration of giant desiclation fissures on the desert dry lakes (playas) throughout the CDCA. Pumping of ground water or natural lowering of the water table beneath the dry lakes has allowed the clay deposits composing the dry lakes to dry out. This is very similar to the polygonal cracks that form when a mud puddle dries up after a rain, except that the dimensions are much greater on dry lakes where the polygonal cracks may be thousands of feet across and ten to hundreds of feet deep.

Erosion commonly creates giant caverns downward toward the water table. These features are far more spectacular than shallow vehicle tracks or bomb craters, yet periodic storms that fill the dry lakes after cloud bursts may completely restore an unblemished dry lake surface. The lake is restored without a trace of fissuring, perhaps for years before the cycle is repeated.

A small percentage of upland terraces or isolated surfaces may be slow to heal, but most of the desert is in fact subject to rather rapid natural restoration. The very arid condition and lack of protective vegetation subjects the desert surface to tremendous natural forces of rain and wind erosion. The proponents of H.R. 780 claim large quantities of soil are disturbed by vehicles, but when their volumes are compared to the volume moved by natural forces, they become relatively insignificant.

A single desert cloudburst and mud/debris flow can transport and rework tens of thousands of tons or more of loose surface materials which are commonly reworked upon drying through natural dust and sand storms, even creating large dune fields under the right conditions. Most interstate highways, railroads and canals crossing the desert have elaborate systems of protective embankments and drainage ditches to protect against flash flooding.

It seems paradoxical that the proponents of H.R. 780 appear to be overly concerned about "off road vehicle use" of the desert, particularly "free play use" off existing roads or trails; while H.R. 780 proposes little or no change in the existing CDCA Plan for isolating, confining, and managing off road vehicle use in designated areas.

It should be noted ALL vehicles (the family station wagon or BMW) are "off road vehicles" once they leave the paved road. Most "off road vehicle traffic" within the CDCA is actually on existing routes of travel where no additional impact is made on the environment. (See: When a Road is Not a Road in appendix).

ECONOMIC IMPACT OF CLOSING SUCH A VAST AREA

There appears to be an effort to influence public policy on mineral access to the California Desert with little understanding of the disastrous effect on America's economy.

The proponents of H.R. 780 appear to be extremely misinformed. Perhaps the best example of this is the misinformation placed in the Congressional Record of April 6th, 1987, by Senator Alan Cranston supporting his California Desert Wilderness and park legislation S.7 (S.11). He said: "The major mineral commodities now being produced in the California Desert are sand and gravel. The California Desert has been intensively prospected for 100 years. Most studies show that there is little remaining commercial developable mineralization in the California Desert."

Obviously, the senator has been misinformed. According to the public records of the California Division of Mines and Geology and the U.S. Bureau of Mines, the California Desert is a leading source of non-fuel mineral production for the State of California and for the nation:

1) Total non-fuel mineral production in California for 1988 was $2.8 billion of which, conservatively, $1.5 billion came from the California Desert; 2) Total sand and gravel production for California in 1986 was valued at $545 million, of which less than 5% is produced in the California Desert. This amounts to about $27 million or only about 2% of the total mineral production of the California Desert; 3) 100 percent of the nation's boron minerals and Hectorite (Lithium) clays are mined in the California Desert. In 1988 these exceeded $500 million dollars; 4) 97% of the nation's rare earth mineral production comes from the Mountain Pass Mine in the California Desert.

These rare earth lanthanides are used in several high technology applications including super magnets, lasers, and the recent breakthrough in superconductivity which may hold the key to future advances in energy conservation; and 5) more than 300,000 troy ounces of gold were mined in the California Desert in 1988.

In a 1978 report by U.S. Bureau of Land Management geologists, it was estimated that the California Desert contained only a little more than 3 million ounces of remaining gold, according to the *U.S. BLM 1980-California Desert Plan, Mineral appendix (KIV-Vol. G).* As a result of small prospectors and private exploration efforts, there has been a dramatic increase in gold discoveries and production in the region.

Production has increased from 5,000 ounces in 1981 to more than 300,000 ounces in 1988. Many of these new gold discoveries are associated with newly discovered overthrust zones unknown by geologists in 1978.

Another recent example of the misperception by the public and Congress of mining and mining claims and their impact in the California Desert was reported by the General Accounting Office in their report: "Mining on National Park Service Lands—What is at Stake?"

Park Service officials testified before Congress that there were 50,000 mining claims in Death Valley National Monument and the "monument was in danger of being strip mined away." After Congress passed the Mining in the Parks Act in September, 1976, freezing mining in Death Valley National Monument, it was found that the 2.2 million acre monument only contained 863 mining claims under the 1872 mining law.

Unfortunately, out of several hundred small mining claimants, only 2 unpatented claim groups (Bullfrog and Skidoo-Del Norte) had the resources to defend themselves from what GAO labeled as a biased invalidation process by the Park Service. These hundreds of small miners were assured their constitutional rights would be protected by the "all valid rights clause" of the 1976 legislation (the same clause as contained in H.R. 780). But only two mines owned by small miners were not seized by the federal government. The same fate may await thousands of small miners in areas proposed for closure under H.R. 780.

Obviously, if the current Park Service management existed in the old days, the now venerated prospector and burro would have been subjected to so much bonding and environmental impact regulations that he could not exist. And it is doubtful that there could have been under current Park Service regulations, the 20 Mule Team Borax wagons that have made Death Valley world famous.

One of the two small miners that did not lose her "valid rights" out of the several hundred who did under the Mining In The Parks Act, was an elderly widow who was told she could not process and reclaim one of her old mine dumps at Skidoo because it was nonimated for the register of historic places. This 25,000 ton mine dump contains about 2,500 ounces of gold of which 2,000 ounces is recoverable. Apparently, the preservationist management of the Park Service desires no similar new mine dumps, but doesn't want any old ones reclaimed either.

During the period when the price of gold rose to $850 per ounce, the widow was tied up in administrative law court defending her "valid rights" without any possibility of getting Park Service permits to process her gold. It's interesting to note that another agency of the Interior Department, the U.S. Geological Survey, had loaned this widow and her late husband exploration funds which helped discover 80,000 ounces of gold within 15 feet of the surface. They were now demanding repayment of the loan from this deposit which they had certified as a discovery.

A local cattleman, Roy Hunter, was wiped out on his grazing lease about the same time, although his family had been in the Death Valley area for more than 100 years.

Parenthetically, the rancher was thrown out after maintaining the range in good condition for a century. However, the Park Service, with its policy of non-management, allowed the feral burro population to destroy the range and create a large dust bowl. H.R. 780 will also destroy century old family ranching in the areas being proposed for national or Wilderness parks.

Another example of government planners, and geologists, ignorance of mineral resources is shown by the 1986 U.S. Forest Service 15 year plan for the San Bernardino National Forest in California. The plan stresses the $6.6 million per year benefit from wood products, tourism and recreation in the forest.

Mining and mineral potential are practically ignored except that several areas of highgrade mineral potential are proposed for withdrawal from mineral entry. The reason usually cited for the mineral withdrawal is because of some alleged sensitive, rare or new plant sub-species.

As a paleonotology major in college, I make the observation that few of these new alleged sub-species has undergone the appropriate peer review to be listed as such or described as a new sub-species. However, the environmental smokescreen is being used to curtail the miners' exploration and society's access to the mineral resources on National Forest lands.

As suggested by the book, *Playing God in Yellowstone* by Alston Chase, the proposed Park Service management of vast new highly mineralized areas of the desert could create an open season for undocumented, subjective and politically motivated decisions based on so called environmental grounds that would make most of the mineral discovery and development process uneconomic. Areas managed by BLM and Forest Service for Wilderness suffer the similar flaws.

Protections include in the national mining law that keep the exploration process even marginal, in the face of incremental entry withdrawals plus constant harassment and pressure from the Forest Service and Bureau of Land Management would be largely wiped out on the California Desert as a practical result of H.R. 780.

An astonishing oversight by Forest Service planners was the total omission of the fact that this National Forest contains the Lucerne Valley Limestone District, the largest highgrade limestone district in the Western United States which produces about 3.5 million tons per year or about $200 million per year (including energy, labor and processing costs) in limestone products. This district generates thousands of jobs and millions of dollars in federal, state and local taxes.

It is also interesting to note that the largest single owner of patented and unpatented mining claims in this district is the 6,000 co-beneficiaries of the local AFL-CIO Union Health Insurance and Pension Trust Fund (Cushenbury Trust). H.R. 780 will designate wilderness about 13,000 acres, including the eastern portion of the Lucerne Valley Limestone District, in the San Bernardino National Forest.

This same area was found unsuitable for Wilderness and dropped from the 1984 California Wilderness Act. Under the earlier RARE II study, this same area was called the proposed Granite Park Wilderness, but now has been lumped with the adjoining BLM Big Horn Mountain WSA.

It is interesting to note that in the late '70's when BLM created the boundaries of the Big Horn Mountain WSA, they relied on old U.S. Geological Survey 15 minute quadrangles from the 1950's with the scale one inch equals one mile. This area was at the time covered by new 7.5 minute U.S. Geological Survey quandrangles at scales of one inch to 2,000 feet or four times the accuracy and 20 to 30 years newer information.

We have already closed off vast areas of high mineral potential in the CDCA. For example about 2.4 million acres of Death Valley and Joshua Tree National Monument are presently administered as wilderness. Paradoxically Death Valley is now known by geologists as a pull-apart basin or rift zone with fractures leading through to earths crust to the earth's mantle creating a geological environment especially favorable for the accumulation of important mineral deposits. In other parts of the world, such as the Red Sea rift and east Pacific rise scientists consider this geologic environment as some of the most promising to supply societies need for mineral and energy resources. We should be very careful before we close more of Death Valley to mineral entry.

The expansion of Joshua Tree National Monument should also be carefully reviewed as the very areas removed from JTNM by congress for its high mineral potential in the 1950's, are being proposed for an expanded National Park. According to Ruff, et.al. (1982) see Appendix. This area contains the largest iron mine and reserves in the western U. S. and the area has produced more than $3 billion in mineral resources in the past with potential for another $3 billion in the future. H.R. 780 excludes the actual mine, but surrounds these resources on three sides by national park. The mine is 59% owned by 7,000 Kaiser Resource employees which are struggling to bring the corporation out of a chapter 11 bankruptcy. H.R. 780 along with Senator Dale Bumper's S-1126 Repeal of 1872 mining law will tend to destroy the value of the workers mining claims not only near JTNM but also in the proposed Mojave National Park!

ABSENCE OF EVIDENCE IS NOT EVIDENCE OF ABSENCE

Contrary to Senator Cranston's perception, there have been very few, if any, in-depth regional studies of economic minerals other than those of individuals and companies, and a few reconniassance studies by state and federal agencies.

There seems to be a tendency for the proponents of H.R. 780 and some elements within the bureaucracy to view society's need for resources in a one dimensional framework represented by Senator Cranston's statement that the land has been prospected for more than 100 years which implies that everything has been found. This statement reminds us of the mindset in the U.S. Patent Office in the 1870's which thought the patent office should be closed because everything worthwhile had already been invented.

In reality, rapidly changing economics and technology continually change the kinds of minerals that are sought and the grades that are economic. According to Vincent McKelvey (1976), former director of the U.S. Geological Survey (1972-1978): "Mineral reserves and resources are dynamic quantities and must constantly be appraised. As known deposits are exhausted, unknown deposits must be discovered, new extractive technologies, and new uses are developed and new geologic knowledge indicates new areas and new geologic environments are favorable for mineral discoveries."

On California's federal land (50% of the state) as well as other federal land states little in-depth regional research has been undertaken by the government or academia since the 1960's. In Southern California the last comprehensive work on the geology of the region was in "Geology of Southern California-Bulletin #170 of the California Division of Mines and Geology-1954."

The last documentation of individual mineral resources or commodities in the region are usually found in the California Journal of Mines and Geology dating from the 1940's or 1950's period. The last comprehensive statewide summary of mined resources was in: *"Mineral Commodities of California-Bulletin -176 of the California Division of Mines and Geology-1957."*

The mineral data based upon which government and private industry are making their decisions today is commonly more than 30 years out of date. Changing economics, new models of ore accumulation and newly discovered thrust fault zones have even made much of the geology in the 1980 BLM Desert Plan ancient history.

Since 70% of the California Desert is covered by alluvium and a proportional part of the proposed National Park and Wilderness are also, obviously many concealed mineral deposits will be lost of H.R. 780 becomes law.

Mineral exploration is the R & D of the mineral industry. Regional economic geology and mineral commodity studies are the foundation of mineral exploration. The lead time to open a new mine now commonly exceeds 20 years or more. Basic state of the art regional geologic and specific mineral commodity studies are necessary to keep the United States competitive with the rest of the world and to maintain our standard of living.

Composing only about 5% of the world's population, Americans consume about 20% of the world's non-fuel minerals. Each American requires on the order of 40,000 pounds of new mineral commodities each year just to maintain his or her standard of living.

For example, Dick and Anna Singer, a mom and pop prospecting team (he is a disabled World War II veteran) worked a claim for 30 years that was thought to be marginal property. It was in the same general area where the Spaniards found gold in 1780 on their way to California. This same area was explored and walked over by hundreds, perhaps thousands of prospectors, miners, and geologists for the past 200 years. Dick and Anna Singer were barely eeking out a living but believed in the site and sought some help to develop it.

After being turned down by numerous mining company geologists who felt the land was less than marginal, they found one major company to come in with them. The company came into the project despite a new University of California Ph.D. thesis which indicated the land was less than marginal.

The company went down 280 feet and blocked out a major world class gold discovery in excess of a billion dollars. Without the small miner and independent prospector working under the national mining law, discoveries like the Singer's would never have happened. H.R. 780 will strangle future exploration in an area of the country with some of the highest potential for new discoveries.

Without large areas open for exploration, and the incentive of the national mining law, accidental discoveries like the world class borate discovery at Boron, California, or the world class rare earth lanthanide deposit at Mountain Pass California, would tend not to be reported, let alone developed. The long term effects of H.R. 780 and similar vast acreage Wilderness withdrawals is profoundly negative and is seriously impacting our ability to find and produce critical and strategic mineral commodities.

Without the small independent explorationist and his expertise and knowledge of America's mineral wealth, sometimes going back several generations, America could lose a vital asset. Wilderness designation without proper assessment and bureaucratic harassment are gradually making the small miner an endangered species.

In the Eastern California Desert is the rare earth deposit at Mountain Pass where, in 1949, most of the Western world rare earth lanthanides were discovered by three uranium prospectors, Herb Wodward, Jim Watkins, and "Pop" Simon. This discovery is in a belt several thousand feet wide and several dozen miles long and perhaps three thousand feet deep. The Sulfide Queen gold mine operated for years almost on top of the rare earth ore body without knowing it. Hundreds of prospectors, as well as dozens of company and government geologists had walked over it while millions of motorists had driven over it on their way to California.

There was suddenly large quantities of rare earth lanthanides, but as no market or known way to produce it. Under today's mining laws and excessively strict rules of marketability, the deposit would not be considered economic and therefore not a valid discovery. As in practically every mineral discovery, it took considerable capital (millions of dollars) to make the deposit

In 1980 Warren Warhol in the South Coast Geological Societies *"Geology and Mineral Wealth of the California Desert"* notes "that many of the uses of rare earth lanthanides were developed only after their commercial availability was demonstrated on a scale which was only made possible by the discovery of the Mountain Pass ore body. The research and development that followed created the economic value of this unique ore body."

"It is easy to overlook the significance of this order of events; that is, the discovery value by small miners and its contribution to the technology of chemistry, metallurgy, glass, petroleum refining and electronics. The lesson to be learned—if this area had been closed to mineral entry in the past, not only would the benefits from this resource have been postponed or lost, but its value would still not be established."

This single discovery has made the United States the predominant world producer of rare earth lanthanides, such as europium, which activates crystals of yttrium to produce red color in television picture tubes; the samarium and neodynium which, when alloyed with other elements, produces a super magnet so powerful that when used in the conventional electric motor, increases its efficiency by 25 to 50%. With the coming lightweight battery technology, these metals may be a significant factor in the development of a pollution free automobile.

The rare earth lanthanides. . . lanthanium, cerium, neodynium, praseodynium, samarium, gadolinium, europium, and some ten others, are in the forefront of elements promising a new age of superconductivity and super magnets which, according to the May 11, 1987, issue of *TIME* magazine, could bring a better environment and quality of life to America via clean fusion energy, vastly more efficient electrical power transmission and smogless quieter electric automobiles.

The availability of these elements is also playing a role in the development of the Strategic Defense Initiative (SDI). We owe this technology and the only principal known reserve of this rare earth lanthanide in North America, to the original discovery by small miner/prospector "Pop" Simon, Herb Woodward, and Jim Watkins.

It should be noted that the only other known significant source of these hightech elements is in Communist China!

EFFECTS OF H.R. 780 ON CRITICAL AND STRATEGIC MINERALS AND NATIONAL SECURITY

In a 1940 speech, Olaf P. Jenkins, the chief geologist for the California Division of Mines, recognized the critical concept which was soon to be tested by the impending Second World War: "No nation on earth possesses all the various minerals needed. In time of peace, to overcome this deficiency, the necessary deficient minerals are imported. In time of war, however, restriction of importation may be so serious to certain industries of a nation as to cripple that nation both from a military standpoint and from the standpoint of internal development."

"Present day national defense should not and does not consider military defense alone, but is studying with great care that possibility (which may turn out to be much more serious) of economic warfare, should the balance of power become so unbalanced as to leave one power to dominate the earth. This could come about should one power possess all the various minerals needed in all of its industries."

These concepts are just as true today as they were in 1940, and they will be for the foreseeable future. However, the Soviet Union, with one sixth of the worlds surface area, and the largest mineral resource base of any nation, is precariously close to possessing all of the various minerals needed to become independent of other nations.

As the Soviet Union, with its nearly three fold advantage in land to find mineral resources, expands into the vast expanse of Asia, it will likely reach total self sufficiency in strategic and critical mineral resources. Once this has been achieved, it will not need to conquer new territory, but will only need to politically destabilize sources of raw materials vital to the west to inflict grave economic damage.

Fred Warshofsky updates Jenkins, 1940 statement in his *Readers Digest* article: "Strategic Minerals: Invisible War": "while most Americans are worrying about the energy crisis'an even more serious resource crunch could bring the U.S. economy to its knees. Of the 36 non-fuel minerals essential to the United States as an industrial society, we are crucially dependent on foreign sources for 22 of them."

Chromium, for example, is widely used in oil refining, petro-chemicals, conventional and nuclear power plants, LNG plants, tanker trucks, gas turbines, industrial machinery, all stainless steel, and all civilian and military jet engines. In some applications, demanding high strength and high temperature erosian resistance, there is no substitute for chromium. Yet our major sources of supply are South Africa and the Soviet Union.

Even gold has become a strategic commodity. In time of international crisis or war, gold may be the only acceptable currency. Each commercial or military jet requires a significant fraction. The chrome-steel jet engines are welded together with gold-nickel alloy which is highly resistant to vibration and metal fatigue. A thin layer of gold is sandwiched in the aircraft windshield so low voltage current can be trickled through to de-ice the windshield.

An ordinary 747 requires about 150 ounces of gold for its construction. Gold is also in great demand for electonic components, space probes, the space shuttle and satellites.

The Soviets and South Africans commonly supply the majority of our gold imports. One wonders what the Soviet price and availability of gold will be if South Africa, with almost half the world's production estimated to be 680 tons per year, falls into chaos or becomes a Soviet controlled state?

The Soviet Union has almost three acres for every one we have. Each acre of land withdrawn from society's access for energy and mineral resources adds to the Soviet's overwhelming advantage in exploration area. The California Desert is such a vast, geologically complex region that its potential for economic minerals is still largely unknown. New discoveries continue to surprise the scientific community. New gold discoveries, platinum group elements and only recently, gallium are examples.

When gallium is compounded with arsenic making gallium arsenide, it can be used to make a computer chip and replace silicon. This increases the speed from 1.8 billion to 18 billion bits of information per second in a computer. Imagine the Soviet Strategic Comand having the advantage of such computers in a conflict with the west! Gallium also increases the efficiency of solar cells, increasing electrical output by more than 20% over current technology.

It should be kept in mind that long term economic stability and military survival favors the society with the most diverse, accessible, productive, and secure mineral resource base.

THE COST AND EFFECT OF SO MUCH WILDERNESS

Conservation is defined as the wise use of a resource. Preservation is only one aspect of conservation. We should not attempt to make all of the public lands a Wilderness park. This concept is gradually endangering the preservation of truly unique areas like Yosemite, the Grand Canyon, Yellowstone, and other true national treasures.

These should obviously be preserved, however, we can't afford the cost of locking up more than 300 million acres of the western public lands. Because so much of our national wealth is now being locked up in Wilderness parks, when society discovers the true impact and cost, all Wildersness will tend to lose credence.

Many uninformed conservationists have suggested we "bank" the nation's mineral resources in Wilderness areas without any idea of the cost to American society. In a recent study, Anders, Gramm, and Maurice at the International Institute of Economic Research at the University of California, Los Angeles, published the results of their study entitled *"Does Resource Conservation Pay?"* It contains some very sobering answers to the cost of "banking mineral resources" in public domain, such as Wilderness and national parks.

Conservation was considered a comparative compound interest problem. "If use of a resource is delayed, the price of the resource may rise during the period of withholding. Alternatively, the resource could be extracted and sold and the net proceeds could be invested. If the rate of appreciation is greater than the rate of return, conservation is rational...

However, "at any time during the twentieth century, enforced long term conservation (withholding) of mineral resources would have been a poor economic decision: for both the generation which made the decision and those which later used the resource. Imminent exhaustion of a resource has historically not been a valid justification for enforced conservation, either by stockpiling or by leaving the resource in the ground."

The above authors concluded, after studying the historical prices of 14 depletable resources including aluminum, petroleum, and precious metals, that none would be more valuable if produced today than their value produced each year and the profit reinvested at the prevailing rates. To stockpile one barrel of crude petroleum in 1900 would have required a 1975 price of $12,900 per barrel to break even. The average break even price for the 14 depletable resources stockpiled in 1900 exceeded the 1975 price by 929,000 percent!

The unmistakable conclusion is, the given the tens of millions of acres now withdrawn or being proposed for the consumptive land use known as Wilderness, it will cost American society not millions or billions, but trillions of dollars in lost economic opportunity over the next few generations! The economic loss will affect not only our future standard of living and quality of life, but will fall hardest on those at the lower end of the economic spectrum.

In the Alaskan Wilderness and park withdrawal of 1980 it was documented during congressional testimony that at least $1.5 trillion in energy resources were locked up in these lands. Society is currently losing billions of dollars per year from these assets which could be used to reduce the negative balance of payments, taxes, and the national debt. H.R. 780 should not be allowed to add one of the richest and most productive areas in the lower 48 states to that kind of closure.

CONCLUSION

We can infer from the Singer's Mesquite deposit, the Mountain Pass rare earth deposit, and from hundreds of other deposits, the independent small miner/prospector/geologist/explorationist is not obsolete in the mineral exploration/assessment process. Indeed, the majority of recent discoveries would not have been made without the small miner or independent explorationist. Many would have been prevented by extensive environmental regulations, the lack of federal, state, and academic resource studies and the absence of financial support.

However, this should not be too surprising since the history of the west is in large part a history of discoveries by the small miner/prospector. Large resource companies identify the majority of their exploration targets either directly from the small explorationists or from evidence of their previous efforts under the national mining law.

In effect, the national mining law has produced an army of thousands of citizens in which the free enterprise system continually "explores and assesses" our open federal land.

Most successful major and many small mining operations were reviewed and explored by dozens of mining companies or private individuals over a period of years before someone made the financial commitment to risk making a "mineral discovery" an operating mine. This system has made American society one of the most productive and prolific mineral producers in the world.

The government mining engineers and geologists who have been assigned the task of making mineral "inventories" or "assessments" of vast areas proposed for Wilderness withdrawal in the California Desert and other public lands, have actually been victims of a myth. Mason Hill, in his response to receiving the 1981 American Association of Petroleum Geologists' Sidney Powers Award, identified a major intellectual flaw in the concept of the mineral "inventory."

"Actually, geologists are partly to blame because we have been pursuaded to tell the decision makers how much oil is left to be found. They have flattered us by saying 'only you geologists can know' consequently, many of us have tried, rather than to admit that quantifying estimates of undiscovered oil is impossible."

"What society really needs is more geologic and geophysical work, more exploratory wells, more financial capacity, and more governmental and public support—not obstructive tactics—to find new oil. If the current pessimism (or optimism for solar energy) persists, we are likely to leave great quantities of a relatively cheap, clean, and efficient source of energy in the ground. This we cannot afford."

If this is true for petroleum, then the complexity of identifying-inventoring unique one-of-a-kind metallic or nonmetallic deposits is infinitely more difficult. Mineral assessment does not only deal with evaluating changing geologic factors in the field but, to be valid, must assess all future raw material demands for manufacturing, agriculture, and national defense. Thus, the task of identifying or assessing mineral reserves or even potential resources over such a vast area as the California Desert is so complex, diverse, and dynamic, that reason dictates society should leave as much area open for mineral entry as possible.

Exploration is not incompatible with other multiple uses, including Wilderness, because vast regions are needed to search for geologic anomalies that are potential economic mineral deposits. Once a deposit is identified, only a tiny fraction of the exploration area is needed to extract the resource.

At Mountain Pass, most of the western world's rare earths come from an area less than 50 acres, yet this is the only known deposit of its kind in all of North America. Rational exploration would suggest that as much area as possible be left open since many mineral deposits have been found by accident, not by any systematic search, or while looking for some other resource.

For example, the world's largest borate deposit in the California Desert at Boron, documented by Siefke in the South Coast Geological Society's 1980 *Geology and Mineral Wealth of the California Desert*, was found accidently by a physician, John Suckow, while drilling for water more than 200 feet below the alluvial surface. This deposit has, for the past 50 years, made the United States the predominant producer of borate in the world. Much of the geology in the proposed national parks and Wilderness in H.R. 780 is concealed by similar alluvial deposits.

Of the 65 mineral commodities identified in the California Desert, about 40% are considered strategic or essential for national defense. Several are considered critical and essential to the needs of the nation. It should be noted that the *ABSENCE OF EVIDENCE IS NOT EVIDENCE OF ABSENCE.*

We must realize that true conservation means wise use and not necessarily preservation. And also that exploration is not necessarily incompatible with Wilderness. Congress should make rational decisions based on up-to-date and factural information. These decisions should be weighted with economic and national security resource needs.

Congress should understand the dynamics of geologic exploration and mineral economics. A mineral inventory or assessment is only meaningful to society when it addresses present and future resource needs of agriculture, constructions, manufacturing, and national defense. It should be understood that there is a substantial price tag for designating vast Wilderness and national parks.

This cost will amount to trillions of dollars in lost economic opportunity over the next few generations and will certainly have an effect on the ability of future generations of Americans to compete and defend themselves. Therefore, as much area as possible should remain perpetually open to energy and mineral availability. Should the Soviet Union successfully convert to a true free enterprise economy with their advantage in natural resources they could bury us economically much as Japan is doing to us presently.

APPENDIX

Cover sheets attached as part of this testimony:

1. "Freezing The Desert: Plan To Create Parks Actually Threatens Wilderness," Kenneth S. Norris, professor of natural history, University of California, Santa Cruz, "San Jose Mercury News", 1/14/87.
2. "Mineral Resources of Eastern Transverse Ranges" (including Joshua Tree National Monument), Robert W. Ruff, Mark E. Unruh, Paul A. Bogseth, 1982 "Geology and Mineral Wealth of the California Tranverse Ranges," South Coast Geological Society, P.O. Box 10244, Santa Ana, Calif. 92711.
3. "San Bernardino Supervisors Hold Hearings on Opening Monument to Mining," "California Mining Journal," August 1954, Page 19, and Letter Kaiser Resources 7000 Employees, Chapter 11.
4. "Proposed National Park Status Would Eliminate Mining," Russ Hartill, "California Mining Journal," May 1985.
5. "In 1980 49-ers Strike It Wealthy," Patricia Barnes and Jeannette Hyduke, "Press Enterprise," Riverside, California, February 4, 1986.
6. "Mineral Resources, Death Valley National Monument," Evans, et. al. Mining on National Parks Service Lands—What is at Stake? General Accounting Office, (EMD 81 119) September 24, 1981, and (EMD-81-119 S) December 14, 1981.
7. "The Desert Playa—A Dynamic Environment For Geologic Research, Military Use, Recreation, Construction, and Toxic or Radioactive Waste Disposal," (Abstract) Donald L. Fife, September, 1981. Presented to Southern California Section Association of Engineering Geologists.
8. "Wilderness Tragedy—Three Mexicans Trying To Walk Across Desert," "Orange County Register," Santa Ana, California, July 15, 1987, Page A-13.
9. "Wiring the Future—The Superconductivity Revolution," TIME, May 11, 1987.
10. "Desert Has Rare Earth," Letter to Editor—Various Papers, Donald L. Fife and "USGS Circular 1035 Inner Mongolia Rare Earths".
11. "Geology and Mineral Wealth of the California Transverse Ranges," Edited: Donald L. Fife and John A. Minch, 1982, 699 pages.
12. "Geology and Mineral Wealth of the California Desert," Edited: Donald L. Fife and Arthur R. Brown, 1980, 555 pages.
13. "Does Resources Conservation Pay," by Anders, Gramm and Maurice. International Institute of Economic Research, University of California at Los Angeles, 1978.
14. "Carbonate Resources, Lucerne Valley Limestone District, San Bernardino Mountains, California," "Geology and Mineral Wealth of the California Transverse Ranges." Letter from Cushenbury Trust, (1989).
15. Photograph: Desert Training Center—General George S. Patton 1942.
16. "When a Road is Not a Road," (Fife and Bray, 1988).
17. Interior Committee letter to Interior Department stating it was not the intent of Congress to close unimproved roads on public land. (U.S. Geo. Survey Class 4 and 5 roads.) 10/5/77.
18. "A Study of California Desert Soils," CDCA. (Dickey, et. al, 1973).
19. "All Valid Rights" Moon, 1988.
20. "Wilderness and the Public Good," (Proctor, 1989).

STATEMENT
of the
NATURAL RESOURCES DEFENSE COUNCIL
before the
SUBCOMMITTEE ON PUBLIC LANDS
regarding
S. 11

The Natural Resources Defense Council (NRDC) submits this testimony to the Subcommittee on Public Lands of the Senate Energy Committee, regarding S. 11, the California Desert Protection Act. NRDC, a national environmental organization, currently has more than 115,000 members and contributers, many of whom use and enjoy the public lands within the California Desert Conservation Area (CDCA) currently managed by the Bureau of Land Management (BLM). For more than 15 years, NRDC has sought to improve the BLM's administration of these and other publicly-owned lands in order to ensure that their resources would be protected and preserved. Among other activities, we participated extensively in development of the Desert Plan in 1980, and, since then, have attempted to follow, as closely as possible, its implementation by the Bureau. In our view, the BLM and its management plan are not now giving the CDCA's extraordinary resources the protection that they deserve and Congress mandated they be given. And, equally, if not more importantly, such management is not likely be forthcoming in the future. Further, the BLM's wilderness recommendations are far from adequate and leave many outstanding wildlands unprotected. Accordingly, NRDC supports S. 11, which would transfer some three million acres now under the Bureau's jurisdiction to the National Park Service and designate 4.5 million acres of wilderness to be managed by the Bureau.

The California Desert includes approximately 12.5 million acres of public lands. In enacting the Federal Land Policy and Management Act of 1976, (FLPMA), Congress found that "the California desert environment is a total ecosystem that is extremely fragile, easily scarred, ... slowly healed ... [and] seriously threatened." 43 U.S.C. §§ 1781(a)(2) and (3). The Desert's varied and outstanding resources include habitat for countless wildlife species, many of which, like the desert tortoise, are on federal and/or state endangered species lists, spectacular scenery, rare plant species and important cultural resources.

In FLPMA Congress recognized that the Desert's resources were "unique and irreplacable," id., § 1781(a)(6), and directed the Bureau to employ a special standard in managing them -- "maintenance of environmental quality," id., §§ 1781(b) and (d).[1] That the BLM has not met this standard in managing the Desert is illustrated by its management of "areas of critical environmental concern" (ACECs) and livestock grazing.

Desert ACECs Not Adequately Protected

ACECs are the most important and sensitive of the publicly-owned resources managed by the Bureau. FLPMA directs the agency to give "priority" to these areas, which are defined as

> areas ... where special management attention is required ... to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes.

Id., §§ 1702(a), 1712(c)(3)(emphasis added). Seventy-three ACECs were designated in the Desert Plan in 1981, including the Clark Mountain, New York Mountains and Fort Soda ACECs which are within the boundaries of the proposed Mojave National Park. While this number was -- and remains -- a Bureau record, a recent NRDC study revealed that the ACEC program in the Desert suffers from serious problems. See Campbell, Faith T. and Johanna H. Wald, Areas of Critical

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[1] The plain language of Section 1781(d) reveals Congress' intent that this phrase constrain the development and use of Desert resources. It also reveals that the Bureau's duty to maintain environmental quality in the Desert is in addition to its general duty to "prevent unnecessary or undue degradation." Id., 1732 (b).

Environmental Concern: Promise vs. Reality (NRDC, 1989)(hereinafter "NRDC ACEC Report")(attached as Appendix 1).

FLPMA requires more than "just" designation of ACECs: areas designated must be given the "special management" they require to protect their environmental values. Clearly, ACECs in the California Desert have not been given such management: according to BLM responses to a questionnaire circulated by NRDC in 1987, 22 of the ACECs designated in 1981 still had no management plan and, moreover, implementation was lagging for virtually all plans that had been developed. Thus, the responses revealed that actions called for in management plans had not been taken and on-going activities, such as monitoring and enforcement patrols, were not being carried out as prescribed. See id. at 22.

As detailed in the NRDC study and confirmed only a few months ago by the General Accounting Office, California Desert --Planned Wildlife Protection and Enhancement Objectives Not Achieved (June 1989) (hereinafter "GAO Report"), the reasons for the delay in implementing necessary protective measures include a chronic lack of adequate funds, notwithstanding the fact that the BLM's Desert District is well-funded in comparison to other BLM Districts, and the agency's traditional unwillingness to confront such politically powerful constituencies as off-road vehicle (ORV) enthusiasts and livestock operators. NRDC ACEC Report at 22,[2] 23; GAO Report at 20-23.

This latter problem was illustrated only recently when the State Director of the California BLM opposed the inclusion of the desert tortoise on the state's sheep species list in part because listing would anger livestock grazers and ORV users of the Desert, Sahagun, Louis, "Agency Asked to Delay Adding Desert Tortoise to Endangered List," Los Angeles Times, February 3, 1989 (attached as Appendix 2). He did so, however, despite the agency's own data showing populations had declined dramatically even before 1988, when the epidemic currently decimating the species began. NRDC ACEC Report at 27. Similarly, despite abundant evidence of the threats that grazing and ORVs pose to the survival of tortoises, the Bureau has yet to control illegal grazing within the ACEC established to protect the reptile, the Desert Tortoise Natural Area, and has permitted ORV races to be held along its border. Id.

In short, the NRDC report reveals, and the GAO Report confirms, that, despite express legislative mandates, even the Desert's most sensitive resources are not receiving the protective management they need. By definition and as recognized by the BLM's management plan, California Desert Conservation Plan 1980, pp. 123-127 and Table 15 (hereinafter "CDCA Plan"), those resources are suffering harm as the result.

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[2] In an effort to compensate for the lack of adequate staff, the agency relies heavily on volunteers. See, e.g., id. at 14.

Given the BLM's failure to manage properly ACECs, it is perhaps not surprising that the agency is failing to ensure that livestock grazing in the Desert is being carried out in an environmentally responsible manner, notwithstanding the assertion to the contrary in the Department of the Interior's 1987 testimony on S.7.

Desert Grazing Poorly Managed and Damaging

That livestock grazing can cause extensive resource damage if not properly managed can hardly be disputed. *See, e.g.*, Public Rangelands Improvement Act, 43 U.S.C. § 1901(a); U.S. General Accounting Office, *Public Rangelands -- Some Riparian Areas Restored But Widespread Improvement Will Be Slow* (June 1988); *California Desert Conservation Area Draft Plan Alternatives and Environmental Impact Statement* (1980), pp. 118-119, 310-318. The Desert Plan established "a starting point" for livestock which would be adjusted as "needed" in the future on the basis of monitoring. CDCA Plan, 68-69. According to a memorandum dated December 19, 1988 from the State Director, a review of the Desert District's grazing monitoring program revealed "significant problems" as well as "little overall improvement since" an earlier review in 1984. Memorandum to "DM, California Desert," "Subject: Results of 1988 Grazing Monitoring Review," p. 1 (attached as Appendix 3). Among the problems identified were the following:

- too little monitoring data were being collected;
- the "utility" of the data collected was "limited;"
- "severely deficient" management objectives and monitoring plans;
- insufficient analysis and interpretation; and
- "most important," insufficient staff "to conduct an adequate monitoring program."

Id. at 1-2. Clearly, the Interior Department's assertion, in its 1987 testimony on S.7, that grazing is being managed in accordance with the Plan and without "causing harm" has no basis in fact. What is more, as is the case with ACECs, we believe that, had monitoring been done, it could well have revealed that degradation was taking place. Certainly it has in other areas under BLM jurisdiction in California and elsewhere.

Thus, for example, according to the California Department of Fish and Game, monitoring done by the BLM's Bishop Resource Area on the effects of current livestock grazing practices on wildlife habitat reveals a "drastic reduction" in the "actual physical condition" as well as "a significant deterioration in habitat quality. Memorandum to The Honorable Gordon Van Vleck, Secretary for Resources, from the Department of Fish and Game, "Subject: Draft Planning Criteria and Pre-Planning Analysis for Bishop Resource Management Plan, U.S. Bureau of Land Management (BLM) - SCH 88110304 (December 5, 1988) (attached as Appendix 4).

In sum, in managing both the Desert's most sensitive resources and one of its most extensive consumptive uses the BLM has yet to carry out FLPMA's mandates for environmental protection. On previous occasions, NRDC, other environmental organizations and the General Accounting Office have stressed the need for changes in agency policy, practice and legislative requirements in order to ensure that these objectives are met. See, e.g., Statement of Debbie Sease on behalf of Sierra Club, NRDC and the National Wildlife Federation Concerning Grazing Management, Oversight Hearing of the House Subcommittee on National Parks and Public Lands, August 2, 1988; Statement of James Duffus III, U.S. General Accounting Office, "Change in Approach Needed to Improve the Bureau of Land Management's Oversignt of Public Lands," before the Subcommittee on National Parks and Public Lands, House Committee on Interior and Insular Affairs, April 11, 1989.

Pending such changes, resources in the Desert will suffer avoidable and unnecessary harm.

In 1976, Congress decided that the resources of the California Desert should not have to suffer past September 30, 1980. Since it is long past that date, Congress should ensure that its original objective is achieved by transferring certain lands to the National Park Service, which, unlike the BLM, has a strong mandate for, and commitment to, preservation of environmental values. In addition, Congress should act now to ensure proper management of wildland resources in the Desert, rather than the short shrift provided by the Desert Plan. In sum, Congress should promptly enact S. 11, the California Desert Protection Act.

Thank you for your consideration of our views.

1989 SEP 19 PM 4:49

Washington Office

September 14, 1989

Honorable Dale Bumpers, Chairman
Subcommittee on Public Lands, National
Parks and Forests
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

While Alameda County California, located on the eastern shore of San Francisco Bay, is some distance from the California desert, our Board of Supervisors has a keen interest in its preservation and appropriate use. Accordingly, the Board in April of this year took a formal position in support of Senator Cranston's bill, the "California Desert Protection Act of 1989" (S. 11), on which you are scheduled to conduct a hearing next month.

On behalf of the Alameda County Board of Supervisors, I am pleased to submit herewith a copy of their Resolution Number R-89-311 for your consideration and for inclusion in the hearing record.

Very Respectfully,

Kenneth W. Wade

Kenneth W. Wade
Washington Representative

KWW/cjm
Enclosure: Board of Supervisors, County of Alameda,
California, Resolution R-89-311
cc: Senator Alan Cranston
Senator Pete Wilson

440 First Street, N.W. • Suite 502 • Washington, D.C. 20001 • (202) 737-9696

THE BOARD OF SUPERVISORS OF THE COUNTY OF ALAMEDA, STATE OF CALIFORNIA

On motion of Supervisor King, Seconded by Supervisor Widener,
and approved by the following vote,
Ayes: Supervisors Campbell, King, Santana, Widener and Chairman Perata – 5
Noes: Supervisors None
Excused or Absent: Supervisors None

THE FOLLOWING RESOLUTION WAS ADOPTED: APRIL 11, 1989 NUMBER R-89-311

SUPPORT CALIFORNIA DESERT PROTECTION ACT

WHEREAS, Senator Alan Cranston has introduced S.11, entitled the "California Desert Protection Act", into the United States Senate; and

WHEREAS, this Bill would incorporate a number of Federally owned Southern California desert sites into the National Park System, expanding the boundaries of the Death Valley and Joshua Tree National Monuments and making them both into National Parks, creating a new Mojave National Park, and preserving an additional 4.5 million acres, scattered in 81 different locations, as Bureau of Land Management Wilderness areas; and

WHEREAS, the purpose of this Bill is to protect the fragile natural heritage of this region from the destructive encroachments of modern civilization, and to preserve its unique flora and fauna, its delicate ecosystems, its fascianting geology and topography, and its spectacular scenic beauty; and

WHEREAS, these lands also contain numerous prehistoric sites of ancient Indian civilizations, making this region one of the richest in the nation in terms of archeological artifacts; and

WHEREAS, this Bill would provide for compatible recreational uses which would promote an increased appreciation for, and understanding of the natural environment of these fierce yet fragile desert landscapes; and

WHEREAS, the people of Alameda County have repeatedly expressed their commitment to the concept that parklands and wilderness preserves play an increasingly important role in our ever expanding modern society;

NOW, THEREFORE, BE IT RESOLVED, that this Board does hereby declare its support for the California Desert Protection Act and urges that all members of the California Legislative Delegation support its passage into law.

DON PERATA
Chairman
Supervisor, Third District

EDWARD R. CAMPBELL
Supervisor, First District

CHARLES SANTANA
Supervisor, Second District

MARY KING
Supervisor, Fourth District

WARREN WIDENER
Supervisor, Fifth District

FILE #4235
AGENDA #14
RESO #R-89-311
4/11/89

I CERTIFY THAT THE FOREGOING IS A CORRECT COPY OF A RESOLUTION ADOPTED BY THE BOARD OF SUPERVISORS ALAMEDA COUNTY, CALIFORNIA APR 11 1989
APR 18 1989
ATTEST:
WILLIAM MEHRWEIN, CLERK OF THE BOARD OF SUPERVISORS
BY:

BOARD of SUPERVISORS

Chair

LORIE MANGINE
District Three

Vice Chairman

JOHN R. CONWAY
District Two

●

CLYDE R. GOULD
District One

LEROY SWINEY
District Four

GARY REED
District Five

Clerk of the Board

JOHN C. McCLURE II
County Executive/
Clerk of the Board

GEORGIA SOUZA
Chief Clerk

ADMINISTRATION BUILDING
COUNTY CIVIC CENTER
2800 WEST BURREL
VISALIA, CA 93291

(209) 733-6271

October 12, 1989

1989 OCT 16 PM 4:16

Congressman Bruce Vento
2304 Rayburn
Washington, D.C. 20515

RE: California Desert Protection Act of 1989 (CDPA) Public Hearings

Honorable Bruce Vento:

As you are aware, the California Desert Protection Act of 1989, H.R. 780 and S.7, proposed by California Congressman Levine and Senator Cranston respectively, requests that large portions of the California desert area be set aside as wilderness. Several thousand acres being proposed for wilderness by these bills are situated within Tulare County.

The Tulare County Board of Supervisors, on behalf of its concerned citizens, believes that the wilderness designations may have various detrimental effects, such as impacts on the use of adjacent property, and severe restrictions on opportunities for multiple uses within the proposed wilderness areas. The Board of Supervisors has previously sent letters of opposition to the CDPA to Senator Cranston and other legislators.

Because of these concerns the Board of Supervisors requests that a public hearing, similar to the field hearings already scheduled in Bishop on October 28 and in Barstow on November 11, be scheduled at a location within Tulare County, possibly in the City of Porterville. A public hearing in Tulare County would give concerned citizens and officials an opportunity to acquire information about the CDPA proposals and voice their opinions about the matter.

If you are in support of this idea we would be happy to work with you on the appropriate time, date, and location of such a hearing. Please advise me at your earliest convenience if you feel a public hearing in Tulare County is possible.

Thank you for your support and assistance.

Sincerely,

Delores E (Lorie) Mangine

Dolores E. (Lorie) Mangine
Chair, Board of Supervisors

cc: Senator Cranston
Senator Bumpers
Congressman Pashayan
Congressman Thomas
Congressman Levine

Pl. Smt

STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*

STATE LANDS COMMISSION

LEO T. McCARTHY, *Lieutenant Governor*
GRAY DAVIS, *Controller*
JESSE R. HUFF, *Director of Finance*

EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, California 95814
CLAIRE T. DEDRICK
Executive Officer

1989 OCT -3

September 29, 1989

Honorable Dale Bumpers
Chairman, Subcommittee on Public Lands,
National Parks and Forests
SD-308 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Bumpers:

The California State Lands Commission remains a strong advocate of S.11 sponsored by Senator Alan Cranston which will be heard in your Subcommittee on Monday, October 2. Cited as the "California Desert Protection Act of 1989," this bill would appropriate, preserve, perpetuate and protect public lands in the Southern California desert for future generations. This desert area contains outstanding cultural, historical and recreational values that warrant its designation as part of the National Park System.

The federally and state-owned desert lands of California comprise an asset of tremendous public resource values for this, and future generations. These wildlands display unique scenic, historical, environmental, archaeological and recreational values. If Congress does not provide the needed protection to this unique environment the California desert will face impairment that could possibly destroy it.

In addition to serving Californians as constitutionally elected statewide officials, we serve as two of the three members of the California State Lands Commission. As Land Commissioners we are responsible for the management of more than 4 1/2 million acres of public land. California's navigable rivers, lakes, and streams, as well as the first three miles of tide and submerged lands off California's coast are under our jurisdiction. In addition, we manage on behalf of the retired teachers of California the school lands granted to California at statehood. The school lands, sections 16 and 36 of each township, comprise 370,000 acres of the land within the proposed national parks and wilderness areas proposed in S.11. The bill contains language that allows for land exchanges with the Bureau of Land Management (BLM); however, it appears that BLM does not have sufficient lands to meet the exchange provisons of SEC. 605. Therefore, we would like to work with Senator Cranston and the Committee to perfect the bill in order to provide certainty that the retired teachers of California will not suffer a hardship from enactment of the "California Desert Protection Act." We believe a preferable way would be to designate specific properties to come to the State and to establish a credit bank or account, as was done in the Alaska Native Claims Settlement Act of 1971, that can be used by the State for the acquisition of Federal surplus properties as they become available. This language will be available before Committee mark-up.

We urge your adoption of the "California Desert Protection Act of 1989." We believe the retired teachers of California and the American public can both benefit from enactment of the "California Desert Protection Act of 1989." As prudent land managers we see the need to protect and preserve the fragile lands that lie within California's pristine desert. S.11 marks the beginning of a necessary bipartisan effort to permanently protect the wilderness areas of the California desert.

Sincerely,

Leo McCarthy
LEO McCARTHY
Chairman, State Lands Commission
California Lieutenant Governor

Gray Davis
GRAY DAVIS
Member, State Lands Commission
California State Controller

cc: Honorable Alan Cranston
Honorable Pete Wilson
Honorable Mel Levine
Honorable Jesse R. Huff

STATE OF CALIFORNIA—RESOURCES AGENCY GEORGE DEUKMEJIAN, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFF-HIGHWAY MOTOR VEHICLE RECREATION COMMISSION
P.O. Box 942896, SACRAMENTO, CA 94296-0001
(916) 445-0305

The Honorable Alan Cranston
United States Senate
Washington, D.C. 20510

October 12, 1989

Dear Senator Cranston:

Thank you for taking the initiative to hold the community forums on drugs and crime here in Southern California recently. I attended the standing-room-only meeting in Anaheim on October 10, and because I did not get an opportunity to speak, I am sharing my thoughts with you and others in this letter.

You spoke correctly when describing the drug problem as a war. The root of this terrible problem seems to be the use of drugs by youngsters and family members who drift apart for many reasons. When growing up in the Sacramento area, I too was tempted by drugs, but a wonderful family activity drew my family and I together and kept us all too busy and happy to even consider it. It may not be a mainstream activity nationally, but here in Southern California, outdoor recreation with off-highway vehicles (OHV's) is definitely a major pursuit for almost 500,000 family members.

Southern California has a fantastic recreational resource in the California desert to keep families off drugs and outdoors enjoying nature with each other. I am very disappointed in your support of S11, the so-called California "Protection" Act, because it will severely restrict family recreation that is so important in keeping our youngsters minds off of drugs. Who are you protecting the desert from? Hard working parents look forward to two precious days every weekend to be able to recreate with their kids in the splendor of the California Desert. They are not out to destroy the land; they want a quality outdoor experience from the seat of a motorcycle or ATV or 4-wheel drive vehicle. This is the same thing that the environmentalists want, it's just a simple difference between wheels and hiking shoes.

The California Off-Highway Motor Vehicle Recreation Commission has spent millions of dollars to provide properly planned OHV recreation opportunities and environmental enhancement in the California Desert. In fact, a full 33% of the fund is specifically earmarked for environmental protection and mitigation. The Commission formally opposes S11 and HR 780 and places great belief in the Congressionally mandated California Desert Plan in balancing the protection of the area with the needs of our citizens. Senator, you fought for the Plan, but have abandoned it after over ten years of intense public involvement. Why?

The California Desert can be protected with more emphasis on policing all uses; recreation, mining, grazing, military operations, even the growing urbanization of Southern California. S11 and HR780 are bad for families and kids. S11 and HR780 are bad for the elderly and the handicapped. S11 and HR780 serve only an elite few who ignore the rights and needs of the majority of Americans, especially here in Southern California where the threat of drugs is so strong.

Senator Cranston, take a real stand against drugs. Rethink your support of S11 and what disastrous effect it will have on the majority of Americans, especially here in Southern California. I invite you to experience OHV recreation yourself. Believe me, the Sierra Club does not just walk in the desert; they have OHV's too. Please respond in writing to my concerns.

Sincerely,

Paul Golde

Paul Golde
Member, COHMVRC

cc: Commissioners
Senator Pete Wilson
Energy and Natural Resources Committee
Subcommittee on Public Lands, National Parks and Forests

California Retired Teachers Association

LEGISLATION

Mrs. Ruth O. de Prida, Chairman
2166 Kenilworth Avenue
Hollywood, California 90039
213-664-5764

Dr. Kenneth Brown — Area I
6534 Stonecroft Terrace
Santa Rosa, California 95405
707-539-5932

Mrs. Lois Aaberg — Area II
580 Bryden Way
Marysville, California 95901
916-743-6376

James Hinds — Area III
3025 Dyer Way
Placerville, California 95667
916-622-4113

Dr. George Bliss — Area IV
11 Brentwood Place
Oakland, California 94602
415-531-6785

Winston Nelson — Area V
305 Bruce Avenue
Salinas, California 93901
408-422-0230

Joseph Ashworth — VI
1578 Quince Avenue
Atwater, California 95301
209-358-5817

Mrs. Bessie Yates — Area VII
5067 Angeles Crest Highway
La Canada, California 91011
818-790-2947

Mrs. Lucile S. Way — Area VIII
1050 Avocado Crest Road
La Habra Heights, California 90631
213-697-5835

Mrs. Mildred McKim — Area IX
450 West 25th Street
San Bernardino, California 92405
714-882-4324

Mrs. Fay Harbison — Area X
543 Tustin Avenue
Newport Beach, California 92663
714-548-4240

Dr. John H. Downey — Area XI
413 Hutchison Street
Vista, California 92084
619-724-7915

BUSINESS OFFICE

Mrs. Dee Adams,
Executive Director
7770 College Town Drive
Sacramento, California 95826
916-381-3273

September 18, 1989

The Honorable Dale Bumpers
United States Senate
Washington, DC 20510

Dear Senator Bumpers:

The California Retired Teachers Association thanks you and your subcommittee for the opportunity to present written testimony on S 11, the California Desert Lands Conservation Act of 1989.

Our Association has an OPPOSE UNLESS AMENDED position on S 11 (Cranston).

The California Retired Teachers Association represents over 100,000 retired members of the California State Teachers Retirement System. This system is not merged with social security and is the primary retirement program for the teachers in California.

Currently the revenue from State School Lands is used to supplement the retirement allowances of system members. Prior to the supplement, however, the real value of the retirement must decline at least 25 percent and in many cases by more than 33 percent. Unlike almost all other public and private retirement systems which are merged with social security which has inflation protection, our system does not have this inflation protection.

For this reason we are very sensitive to the possible loss of State School Land and the potential revenue from that land. In a very direct and real meaning, the loss is a loss of our retirement.

Although S 11, as before your subcommittee, has many positive provisions, the bill does not have adequate protection for equal value land exchange. The school lands within the bill's provisions have not been adequately surveyed for mineral value. It is possible that the value is greater than the value of land available for exchange under the provisions of S 11.

Additionally, there is not specified time requirements for the completion of a survey and the exchange. This lack of a completion date leaves us at the mercy of the federal priorities. For the last 153 years we have been waiting for some of our State School Lands. With this history, we are concerned that an expedited priority might not be applied to the exchange program.

Attached as Appendix A is a copy of our letter to Senator Cranston indicating our opposition and our requested amendments to withdraw our opposition. Also attached as Appendix B is a listing of probable mineral resources on State School Lands in the S 11 conservation, wilderness and park area.

Please let me know what action the California Retired Teachers Association should take to assist in the adoption of our requested amendments.

Thank you for your consideration. If you have any questions please contact David Walrath at 1130 K Street, Suite 210, Sacramento, Ca. 95814 (916) 441-3300 for further information or assistance.

Sincerely,

Edwin Williams

Edwin Williams, President
California Retired Teachers Association

EW/kb

Attachment

cc: Senator Alan Cranston
Members, California Teachers Retirement Board

APPENDIX A

California Retired Teachers Association

LEGISLATION

Mrs. Ruth G. de Prida, Chairman
2166 Kenilworth Avenue
Hollywood, California 90039
213-664-5764

Dr. Kenneth Brown — Area I
6534 Stonecroft Terrace
Santa Rosa, California 95405
707-539-5932

Mrs. Lois Aaberg — Area II
580 Bryden Way
Marysville, California 95901
916-743-6376

James Hinds — Area III
3025 Dyer Way
Placerville, California 95667
916-622-4113

Dr. George Bliss — Area IV
11 Brentwood Place
Oakland, California 94602
415-531-6785

Winston Nelson — Area V
305 Bruce Avenue
Salinas, California 93901
408-422-0230

Joseph Ashworth — VI
1578 Quince Avenue
Atwater, California 95301
209-358-5817

Mrs. Bessie Yates — Area VII
5067 Angeles Crest Highway
La Canada, California 91011
818-790-2947

Mrs. Lucile S. Way — Area VIII
1050 Avocado Crest Road
La Habra Heights, California 90631
213-697-5835

Mrs. Mildred McKim — Area IX
450 West 25th Street
San Bernardino, California 92405
714-882-4324

Mrs. Fay Harbison — Area X
543 Tustin Avenue
Newport Beach, California 92663
714-548-4240

Dr. John H. Downey — Area XI
413 Hutchison Street
Vista, California 92084
619-724-7915

BUSINESS OFFICE

Mrs. Dee Adams,
Executive Director
7770 College Town Drive
Sacramento, California 95826
916-381-3273

September 6, 1989

The Honorable Alan Cranston
Member of the U.S. Senate
Hart Senate Office Building, Ste. 112
Washington, D.C. 20510

Dear Senator Cranston:

I am writing as president of the California Retired Teachers Association. Our association represents the more than 100,000 retired teachers who receive benefits from the California State Teachers' Retirement System.

I am writing to request an amendment to S11 concerning the California Desert Protection Act of 1989. We asked before and you agreed to amend your bill to reflect the transfer of State School Lands which would be in the Act's protection area.

We requested this amendment because some of our retirement funding is from the revenues from State School Lands.

We were shocked to learn, however, that the State School Land that could be transferred has never been adequately surveyed for its value. We are concerned that the Department of Interior and the Bureau of Land Management may not have land of equal value to accomplish a trade for our lands.

Whether the State School Lands are of great or little value is unknown because they have not been surveyed. I and all other presently retired teachers would be remiss in our obligations to future retired teachers if we did not protect the potential value of our land resources.

For this reason we respectfully adopt an OPPOSE UNLESS AMENDED position on S11. The amendments we request are:

- All federal land subject to the Department of Interior, the Department of Defense, the Department of General Services, and the Department of Agriculture be available to trade for the value of State School Lands.
- The value of the State School Lands be determined by an independent geological survey by the University of California as approved by the State Lands Commission, the State Department of Conservation and the State Energy Commission.
- The act shall not be effective until 60 percent of the State School Land has been surveyed and traded for land of equal value.

The federal government has kept and used the School Land sections in the Elk Hills area in order to balance the federal budget deficit. We do not intend to allow a similar mistake to happen again without our loud and long complaint being heard and remembered.

Please make the necessary amendments to protect the value of the land and the pension retirement benefits of California's retired teachers.

Thank you for your consideration and understanding of our concerns.

Please let me know if you will adopt the amendments.

If you have any questions, please call or write me at our state office address or David Walrath (916) 441-3300 at 1130 K Street, Sacramento, CA 95814.

Sincerely,

Edwin Williams

Edwin Williams, President
California Retired Teachers Association

EW/bgm

APPENDIX B

State-Owned Parcels with Mineral Resources - 120

State Royalty Parcels with Mineral Resources - 107

Identified Mineral Resources:

limestone
gold
copper
tungsten
molybdenum
lead
iron
cesium
silver
gypsum
barium
manganese
potassium
zinc
fluorspar

California Farm Bureau Federation
1601 Exposition Boulevard • Sacramento, CA 95815 • Telephone (916) 924-4000

1989 OCT 10 PM 2:34

October 5, 1989

The Honorable Dale Bumpers
Chairman, Energy and Natural
Resources
Subcommittee on Public Lands,
National Parks and Forests
The United States Senate
Washington, D.C. 20510

Dear Senator Bumpers:

The California Farm Bureau Federation opposes S. 11, the California Desert Protection Act of 1989, introduced by Senator Cranston, as well as H.R. 780 introduced by Congressman Levine.

This legislation would make significant changes that greatly reduce the applications of the multiple use concept of public lands provided for in current law. Farm Bureau strongly supports the multiple use concept of public lands. Multiple use of public lands provides benefits to many people such as jobs, recreational opportunities, use of renewable resources and economic support for rural communities. Wilderness management is inconsistent with multiple use principles; therefore we are opposed to further sizable designations of public lands as wilderness or national parks as proposed in this legislation.

The shifting of the millions of acres of multiple use lands to wilderness and national parks will have considerable economic impacts on a variety of resource uses, such as livestock grazing, mineral extraction, and recreation, and on rural communities. While it is difficult to determine the annual economic impact on local communities and recreation, some monetary effects on mining and agriculture are indicated below.

Currently, six million acres of federal land in California are designated wilderness, primarily U.S. Forest Service and National Parks managed land. This amounts to about seven percent of the National Wilderness Preservation System. There are another 1.9 million acres of land in Death Valley pending wilderness designation by the National Park Service. Also, Anza Borrego State Park has 442,000 acres of state wilderness. S. 11, if enacted, would add 3.2 million acres to national monuments and parks and 8.8 million acres as wilderness designations.

S. 11 would add another 3.2 million acres to the existing 2.6 million acres of national monuments (Death Valley and Joshua Tree). Most of the land in these newly designated "national parks" would be declared as wilderness. An additional 4.3 million acres of BLM lands would also be designated as wilderness. Only 4.6 million acres of the 12.1 million acres managed by the BLM would be available for access by the public for general uses.

S. 11 would more than double the acreage in the Desert Area committed to national monuments/parks and wilderness ---- from 19 percent to 42 percent. The 12.1 million of acres managed by BLM would decrease from 40 percent to 17 percent or about one-sixth of the Desert Area.

S. 11 would disrupt the long range plans of the California Desert Conservation Area (CDCA) as provided by 1976 Federal Land Policy and Management Act. The Bureau of Land Management was mandated by Congress in 1976 to manage 12.1 million acres of public lands in the 25 million acre CDCA to achieve a balance of multiple uses. The California Desert Plan (CDP), which has been in effect over the past decade, has proven to provide a good balance between the preservation of the desert's fragile resources and multiple uses. These multiple uses include natural resources, corridors for public power and communication lines, wildlife, livestock grazing, wild horse and burros, recreation and public access to explore and enjoy the vast land resources. The remainder of the vast desert had been previously divided into national monuments, state parks, military bases and privately owned lands where access to the general public is prohibited or restricted.

The legislation would establish the Mojave National Park in an area where livestock grazing has existed for over 100 years. Grazing would be allowed for permittees with valid grazing permits, but upon expiration of the current term of the permits, they will not be renewed. Some 14 grazing allotments would be directly affected and/or lost.

The East Mojave Desert includes most of the livestock grazing in the CDCA. The designation of the East Mojave Park would, in time eliminate 11 ranching operations which have about 35,000 animal unit months of grazing. The water developments in the Mojave, many of which were partially funded by grazing lessees, provide water for wildlife as well as livestock. This funding source for water developments would be lost. There are 16 cattle operations in the Desert Area. The operators pay taxes on 130,810 acres of private land, as well as possessory interest taxes on 1,953,000 acres of public lands for grazing livestock. Over 1.9 million pounds of beef is produced annually in the Desert Area. The impacts of S. 11 would severely impact the desert's livestock industry.

We understand that an American corporation owns some private land in the Cadiz area purchased from Southern Pacific Railroad. The owners have plans to exchange some land with the BLM to form an area that would provide irrigation water from an aquifer. However, this project could be curtailed because of the wilderness additions proposed in S. 11. This proposed farming area has the potential for growing grapes, apricots and nuts.

S. 11 will have a severe impact on mineral and rare earth exploration. The California desert contains many minerals. Sixty-five known minerals are mined from the desert. Twenty-four of these minerals are considered strategic and three are considered critical to the nation's needs. The demand is so high for these 27 minerals that the U.S. must depend on imports. The known mineral reserves are valued at more than $360 billion. In 1988, $1.3 billion in minerals were mined from the desert, about one-half of California's total non-fuel mineral production. Two geothermal fields have been positively identified and there is potential for more. Gold production is increasing annually. About 200,000 ounces were mined in 1986 and an estimated 305,000 ounces were mined in 1988.

About 97 percent of the nation's rare earths are produced from the California desert, with the potential for more development. Rare earths, such as lanthanum and yttrium are currently being used in research efforts for conductors. Under S. 11, about seven million acres would be closed to future mineral exploration and development. Many known reserves are underdeveloped and much of the desert is still largely unexplored for minerals.

The desert is very important to U.S. military operations. Presently there are almost 90,000 low level military flights annually in the desert. The legislation would freeze the number of flights and restrict establishment of new flight corridors. Farm Bureau supports a strong national defense program and therefore would be concerned that curtailment in military training on the desert would have a negative impact on our national defense program.

S. 11 would close about 2,200 miles of routes to off-road vehicles and prohibit the use of the millions of acres designated as national parks and wilderness. Thus, quality access to the desert would be lost for recreation, mineral exploration, grazing and other public uses. Overcrowding in the remaining land by recreational users would likely result in severe overuse and degradation.

S. 11 will have substantial impacts on diverse and numerous segments of California's population -- farmers and ranchers, off-road vehicle operators, miners, campers. We requested by our letter of July 12, 1989, that field hearings be held in

California -- you will not obtain a true reading of the feelings of the citizens most impacted state by holding one hearing 3,000 miles away with a tightly restricted witness list.

We urge the defeat of S. 11 since it upsets a plan that is already providing for the preservation of the desert and for the varied interests and communities who use and depend on it.

Sincerely,

Bob L. Vice

BOB L. VICE
President

BLV:dh
cc: Honorable Alan Cranston
Honorable Pete Wilson
John Datt, Executive Director, Washington, D.C.
American Farm Bureau Federation
Greg Carnill, Executive Director, National Affairs and Research
California Farm Bureau Federation

BAKER AREA
Chamber of Commerce
POST OFFICE BOX 131 ● BAKER, CALIF. 92309

September 27, 1989

The Honorable Dale Bumper, Clairman
Senate Energy Subcommittee on Public Lands
Attn: Beth Norcross
364 Dirksen Senate Office Building
Washington, D.C. 20510

Re: SB 11/HR 780

Dear Sir;

The Baker Area Chamber of Commerce unanimously passed a resolution in opposition to SB 11 and HR 780 on the 24th of September, 1989.

We feel these bills are in direct conflict with the California Desert Plan that has been in affect for some time. This Plan has had the input of every organization and user of the California Desert and should be allowed to work with the leadership of the Bureau of Land Management.

Sincerly,

Ann Price, president

U.S. Chamber of Commerce

1615 H Street, N.W.
Washington, D.C. 20062
202/463-5602

1989 OCT 16 PM 4:47

Albert D. Bourland
Vice President
Congressional Relations

October 13, 1989

The Honorable Dale Bumpers
Chairman
Subcommittee on Public Lands,
National Parks and Forests
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The U.S. Chamber of Commerce strongly opposes S. 11, the California Desert Protection Act of 1989, introduced by Senator Cranston. S. 11 designates millions of acres of California desert as wilderness and millions more as national parks, without first considering the areas' resource values. It disregards the existing California Desert Conservation Plan, which was carefully designed, with public participation, to provide balanced use of these desert lands.

The Federal Land Policy and Management Act (FLPMA), passed in 1976, required the U.S. Department of Interior's Bureau of Land Management (BLM) to prepare a comprehensive land use plan "for the management, use, development and protection of public lands" in the California Desert Conservation Area (25 million acres in Southern California) created under the FLPMA. The California Desert Conservation Plan was completed in 1980, after some 70 public meetings that produced 9,000 written comments, and approved by two Secretaries of the Interior in 1980 and 1981, under Democratic and Republican administrations. In strict compliance with the 1976 Congressional mandate, the plan includes protection for special cultural or natural resources, such as Native American artifacts; endangered plant or animal species; unique or unusual geology and other items that demand special management attention; zoning for limited, moderate and intensive uses; and a plan for setting aside 1.9 million acres as wilderness.

S. 11 expressly forbids new leasing for oil, gas, geothermal and other mineral exploration and subjects some 80,000 existing mining claims to cancellation.

According to the BLM, the California desert is one of the richest mineral areas in the United States. Some 65 mineral commodities are produced in the desert, including 97 percent of the nation's strategic minerals, such as titanium, molybdenum and chromium. In addition, 100 percent of the boron minerals, 15 percent of the talc, 10 percent of the crude gypsum and six percent of metallic minerals are produced there. Furthermore, all 11 "rare earths," needed for solid state electronics and superconducting devices, are located in the California desert.

In addition to its negative effects on mineral exploration and development, S. 11 outlaws livestock grazing on much of the land that it covers.

S. 11 ignores the many hours of work, compromises and recommendations that resulted in the California Desert Conservation Plan established by the FLPMA. The Chamber urges you to oppose S. 11 and requests that this letter be made a part of the hearing record on this bill.

Sincerely,

Albert D. Bourland

cc: Subcommittee Members
    Beth Norcross, Majority Professional Staff
    Jim O'Toole, Minority Professional Staff

Southern California Edison Company

P. O. BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CALIFORNIA 91770

ROBERT DIETCH
VICE PRESIDENT

TELEPHONE
818-302-4144

October 16, 1989

Honorable Dale Bumpers, Chairman
Subcommittee on Public Lands, National Parks and Forests
Committee on Energy and Natural Resources
U.S. Senate, Room SH 308
Washington, D.C. 20510

Dear Chairman Bumpers:

Southern California Edison appreciates the opportunity to submit its statement on S.11 to your subcommittee on Public Lands, National Parks and Forests.

Edison has been working with the proponents of S.11 seeking satisfactory resolution to the significant problems this bill will present on Edison's ability to provide reliable electrical service in a cost-effective and an environmentally safe manner to its customers. However, there are several issues that we have been unable to resolve. Thus, we appreciate the opportunity to submit the enclosed statement which outlines the issues of S.11, as it is currently written, and the problems it presents for Edison. Enclosed with the statement are Edison's recommended amendments to the bill that will resolve these potential conflicts.

I appreciate the opportunity to submit this statement and thank you for your consideration of our concerns with S.11.

Sincerely,

Robert Dietch

STATEMENT
OF
SOUTHERN CALIFORNIA EDISON COMPANY

BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS AND FORESTS
REGARDING S.11
THE CALIFORNIA DESERT PROTECTION ACT

Southern California Edison Company ("Edison"), one of the nation's largest investor-owned public utilities, appreciates this opportunity to provide its statement on S. 11. Edison provides electric service in a 50,000 square-mile area of central and southern California. This area includes some 800 cities and communities. Electric service is provided to nearly 3.8 million customers representing about 10.5 million people. Sales of about 71 billion kilowatt hours ("kWh") were recorded in 1988, when demand reached 15,987 MW (megawatts).

Seventy-five percent of Edison's customers live in the Los Angeles Basin, while the remaining 25 percent live in the lower Central Valley and desert areas east of Los Angeles where air conditioning and heating needs are greatest. About 8 percent, or 286,000 residential customers (a population of about 588,000 people), are located in the California Desert Conservation Area (CDCA). Additionally, the CDCA has approximately 29,800 commercial, 2,500 agricultural and 2,500 industrial customers. Figure 1 shows Edison's service territory and the CDCA.

Although 88 percent of Edison's customers in the CDCA are residential, they accounted for only 39 percent of total kilowatt-hour sales in the area in 1988. The commercial and industrial sectors together accounted for more than half of total energy consumption.

Edison's goal as an electric utility is to provide reliable and environmentally acceptable electric service at a reasonable cost. Planning to meet this and the other corporate goals involves the orderly assessment of future conditions and the determination of appropriate future actions. Additionally, the resource plan must be flexible and responsive enough to meet these goals in an uncertain operating environment.

Planning is a continuous function and as significant changes occur in the operating environment, alternative courses of action are reviewed and plans revised to maintain a steady course toward desired objectives. Typically, detailed planning is done for periods of five and ten years into the future, but future resources may be studied up to 20 years into the future to ensure the availability of resource options. The resources in the California Desert Conservation Area are of strategic importance in Edison's 20-year planning horizon.

SCE SERVICE TERRITORY AND CALIFORNIA DESERT CONSERVATION AREA BOUNDARIES

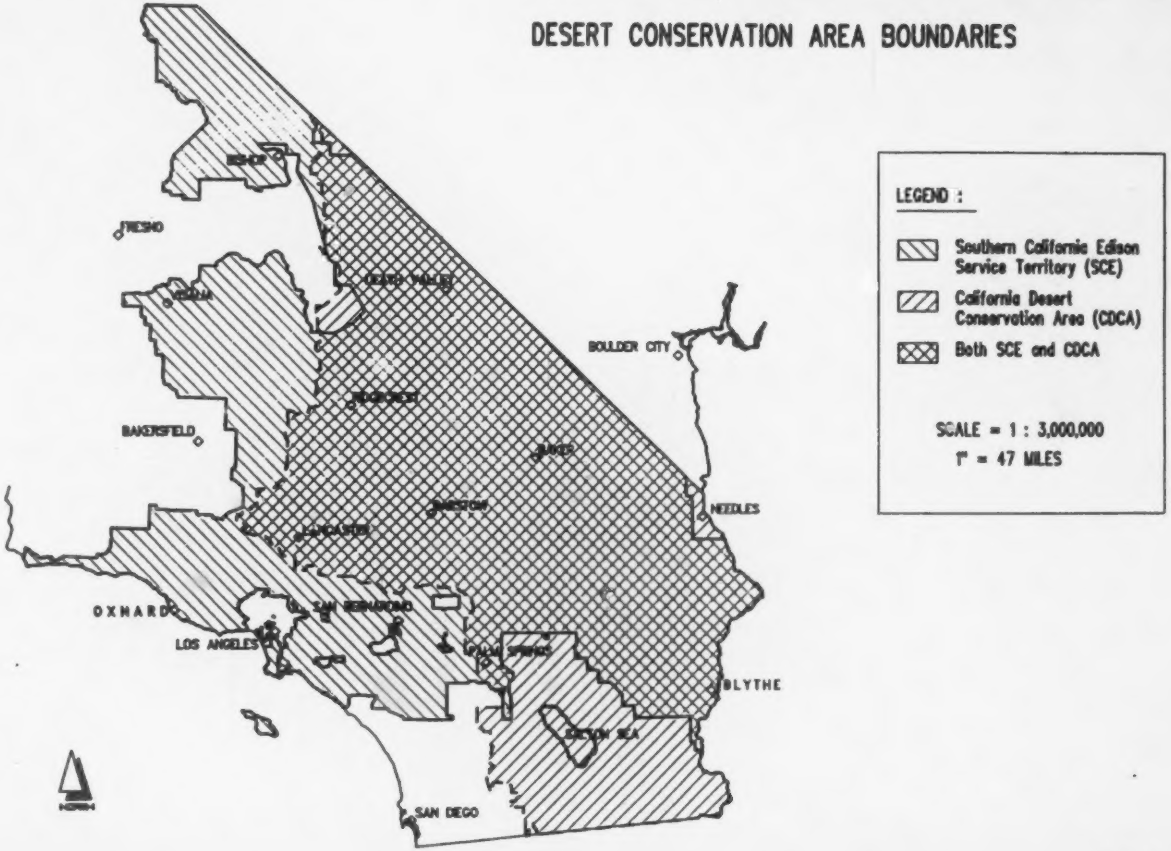

BISHOP
FRESNO
DEATH VALLEY
VISALIA
BOULDER CITY
RIDGECREST
BAKERSFIELD
BAKER
BARSTOW
NEEDLES
LANCASTER
OXNARD
SAN BERNARDINO
LOS ANGELES
PALM SPRINGS
BLYTHE
SALTON SEA
SAN DIEGO
NORTH
LEGEND :
▧ Southern California Edison Service Territory (SCE)
▨ California Desert Conservation Area (CDCA)
▩ Both SCE and CDCA
SCALE = 1 : 3,000,000
1" = 47 MILES

Figure 1

Edison's 1989 Resource Plan, which is provided to the California Public Utilities Commission and The California Energy Commission, is designed to enhance the efficient and cost-effective use of electricity to meet forecasted customer needs. The Plan identifies approximately 7,150 MW of net resource additions, plus 2,150 MW of energy management programs, which will be required in the next 20 years. According to this Plan, over 5,200 MW of additional capacity, including 950 MW of energy management, will be required in the 1998-2008 time period. The generating capacity is planned to be secured from a variety of resources, including:

- Edison-owned resources
  (units returned to service, repower existing units, and new resources)
- Edison energy management programs
- purchases from other utilities
- purchases from non-utilities (Qualifying Facilities and Independent Power Producers)

Resource siting locations are uncertain. However, a portion of the resource need can be expected to come from remote resources located outside the Los Angeles Basin and delivered to Edison's load center by transmission lines crossing the CDCA.

South Coast Air Quality Management Plan (AQMP)

On March 17, 1989, a 20-year plan to meet state and federal air quality standards in the Los Angeles Basin area was approved by the Southern California Air Quality Management District (SCAQMD) Board and the Southern California Association of Governments (SCAG). If the AQMP is successfully implemented as projected and necessary technological advancements are made, including significant electrification of industrial processes and transportation, as much as 9,000 MW of new electric load could develop by the year 2010. It is estimated by Edison that nearly 6,000 MW of this new electric load would be in the Edison service territory. The remaining portion would be in the Los Angeles Department of Water and Power (LADWP) service territory. If this occurs, as much as 2,000 MW of additional transmission capability could be required to augment the existing transmission system which crosses the CDCA.

Transmission Usage

Edison's use of its existing and planned transmission capability from the Pacific Northwest and the Desert Southwest will be essentially full by 1998 through capacity and/or energy transactions. This includes utilization of Edison's share of the Pacific Intertie HVDC Expansion Project, the Devers-Palo Verde No. 2 500-kV Transmission Line, and the California-Oregon Transmission Project.

In support both of Edison's resource plan requirements in the post-1998 time period, and the AQMP, expansion or upgrade of Edison's transmission system is likely to occur. New generation resources will be needed. Some generation may have to be remotely sited. Additional power purchases will be required, and participation in transmission projects sponsored by Edison and other utilities may be necessary.

Today, Edison's transmission lines in the Pacific Southwest (including California's Mojave Desert) deliver power from base-load resources located in the states of Arizona, Nevada, and New Mexico. Loading on these lines is relatively constant unless generation units are unavailable and replacement capacity/energy is not or cannot be secured from the resources of utilities located in this area, or system power import limitations due to transmission constraints are in effect. In the future, in order to gain access to (electricity) resource-abundant regions of the Western Systems Coordinating Council (WSCC), particularly in the states of Idaho, Utah, Colorado and Wyoming, increased transmission capability across the Mojave Desert could be required. Figure 2 shows major transmission intertie points with Southern California.

Edison-Owned Transmission Lines Crossing the CDCA

Northern Transmission System

- Mohave - Lugo 500 kV Transmission Line
- Eldorado - Lugo 500 kV Transmission Line
- Eldorado - Lugo Nos. 1 & 2 230-kV Transmission Lines
- Devers - Julian Hinds (via Metropolitan Water District pumps) 230-kV Transmission Line

Southern Transmission System

- Palo Verde - Devers No. 1 500 kV Transmission Line
- Palo Verde - Devers No. 2 500 kV Transmission Line (future)

Edison's ownership share of the Northern Transmission System crossing the CDCA (i.e., those lines entering California from Nevada), is 2,610 MW. This amount is fully utilized to deliver Edison's Four Corners and Mohave resources, firm power purchases from Hoover Dam and Metropolitan Water District resources, commitments to other utilities, and allocations for interconnection support and loop flow.

Edison's ownership share of the Southern Transmission System crossing the CDCA (i.e., those lines entering California from Arizona), is 1,349 MW prior to operation of the planned second Devers - Palo Verde 500-kV line, and 2,107 MW after the second

Major Southern California Transmission Tie Points

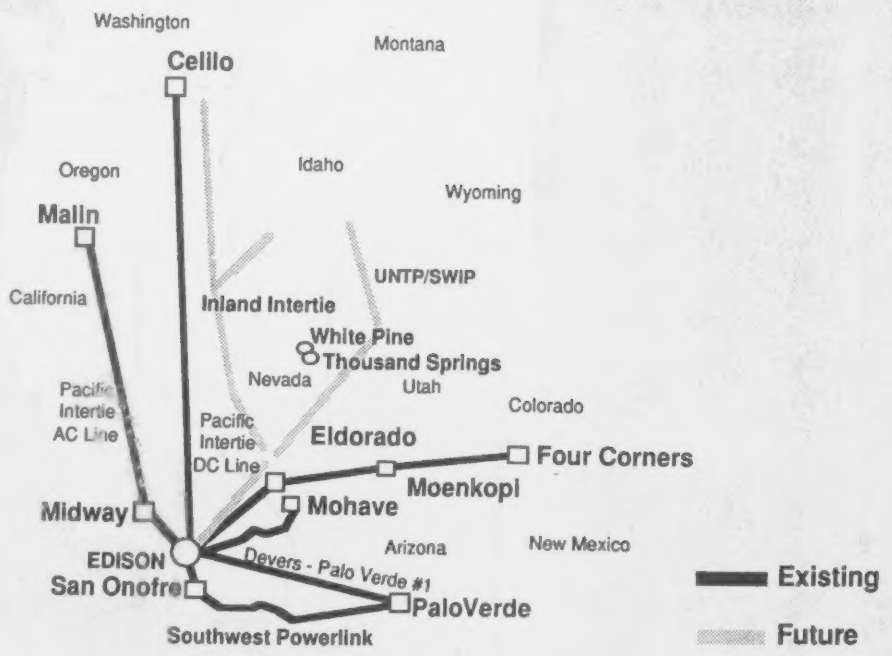

Washington
Montana
Cellio
Oregon
Idaho
Wyoming
Malin
UNTP/SWIP
California
Inland Intertie
White Pine
Thousand Springs
Nevada
Utah
Pacific Intertie AC Line
Pacific Intertie DC Line
Colorado
Eldorado
Four Corners
Moenkopi
Mohave
Midway
Arizona
New Mexico
EDISON
Devers - Palo Verde #1
San Onofre
PaloVerde
Southwest Powerlink
Existing
Future

Figure 2

line goes into service. The 2,107 MW capability will be used to deliver Edison's share of electricity from Palo Verde Nuclear Generating Station resources, commitments to other utilities, and allocations for interconnection support, loop flow, and non-firm and short-term firm purchases.

Future Identified Generation/Transmission Projects with Potential to Serve the California Energy Market

Each of the future projects listed below is in the Idaho/Nevada/Utah area and could affect the need for new transmission facilities in the area of the CDCA where Edison's Northern Transmission System is located. It is likely that any of these projects would enter California through Utility Corridor BB, along Interstate 15.

Inland Intertie - A Transmission Project with 2,200 MW of capacity to deliver energy from the Pacific Northwest markets to the desert Southwest, including over 525 MW of project entitlement for various California utilities, of which 230 MW would serve Edison-area needs.

Utah-Nevada Transmission Project (UNTP) and Southwest Intertie Project (SWIP) - Two transmission projects which may combine as one to deliver up to 2,200 MW of power and associated energy from the south-central Idaho/west-central Utah/east-central Nevada areas to southern Nevada. Edison has expressed an interest to participate in up to 400 MW of transmission capacity in the UNTP.

White Pine Generating Station - A 1,500 MW generation plant planned in the post-2000 time period near Ely, Nevada.

Thousand Springs Generating Station - A 250-2,000 MW generation complex planned by a consortium of developers, both utility and non-utility, for operation in the late 1990/post-2000 time period and located near Ely, Nevada.

EDISON'S SPECIFIC CONCERNS REGARDING THE CALIFORNIA DESERT PROTECTION ACT, H.R. 780

Southern California Edison recognizes the interests of the parties responsible for drafting S.11 and H.R. 780 and of those parties supporting legislation for the protection of important desert resources. Edison was instrumental in coordinating utility input and support for the Utility Element of the BLM's California Desert Plan (see Figure 3) and working for a balance of interests in this geographic area. In that same spirit, Edison is working with the sponsors of the proposed California Desert Protection Act to resolve concerns we have with the legislation as currently written. Edison's concerns are identified and grouped into five major areas for this Subcommittee.

1. Operation and Maintenance of Existing Facilities.

Edison has major high-voltage transmission lines entering California from the east along BLM Utility Corridors D, BB, and K (see Figure 3). Additionally, Edison has transmission lines in the Eldorado-Lugo Contingency Corridor W and Mohave-Lugo Corridor (see Figure 3).

These transmission lines require maintenance for reliable, continuous and safe operation. They require periodic inspection by helicopter and motorized vehicle to check for storm damage, vandalism, and other equipment failures. Motorized vehicle and helicopter access is required when maintenance and repair are needed.

Edison believes that this legislation does not adequately provide for routine and emergency facility operation and maintenance by helicopter and motorized vehicle within the areas designated for wilderness and national park classification, and recommends amendment of this legislation. The proposed amendments are attached to this statement.

2. Utility Facility Up-Grade and Expansion

Edison currently has one 500-kV transmission line between its Mohave Coal-Fired Generating Station near Laughlin, Nevada and Lugo Substation near Victorville, California. This line is on an approved right-of-way issued by the Bureau of Land Management (BLM). Edison has three transmission lines between Eldorado Substation south of Las Vegas, Nevada and Lugo Substation near Victorville, California. These four transmission lines bring power to Edison's load center from areas east of its service territory. The Eldorado-Lugo lines are within Contingency Corridor W of the Utility Element of the BLM's California Desert Plan. These lines will traverse the proposed Mojave National Park if the park boundaries are enacted as proposed (see Figure 3).

Edison is seeking provisions in S.11 and H.R. 780 that would permit the upgrade of these lines to higher voltages should future needs warrant it. Edison is also seeking changes in H.R. 780 that would permit the addition of one line adjacent to the present Mohave-Lugo Line and one line adjacent to the present Eldorado-Lugo Lines.

Currently, S.11 does not provide for future electric transmission in this area. To minimize the potential impact of any future lines, Edison is seeking provisions for only 500-feet right(s)-of-way on one side or the other of these existing lines for future additions. Recommended amendments to S.11 for these additions are attached to this statement.

CALIFORNIA DESERT PROTECTION ACT AND UTILITY CORRIDORS

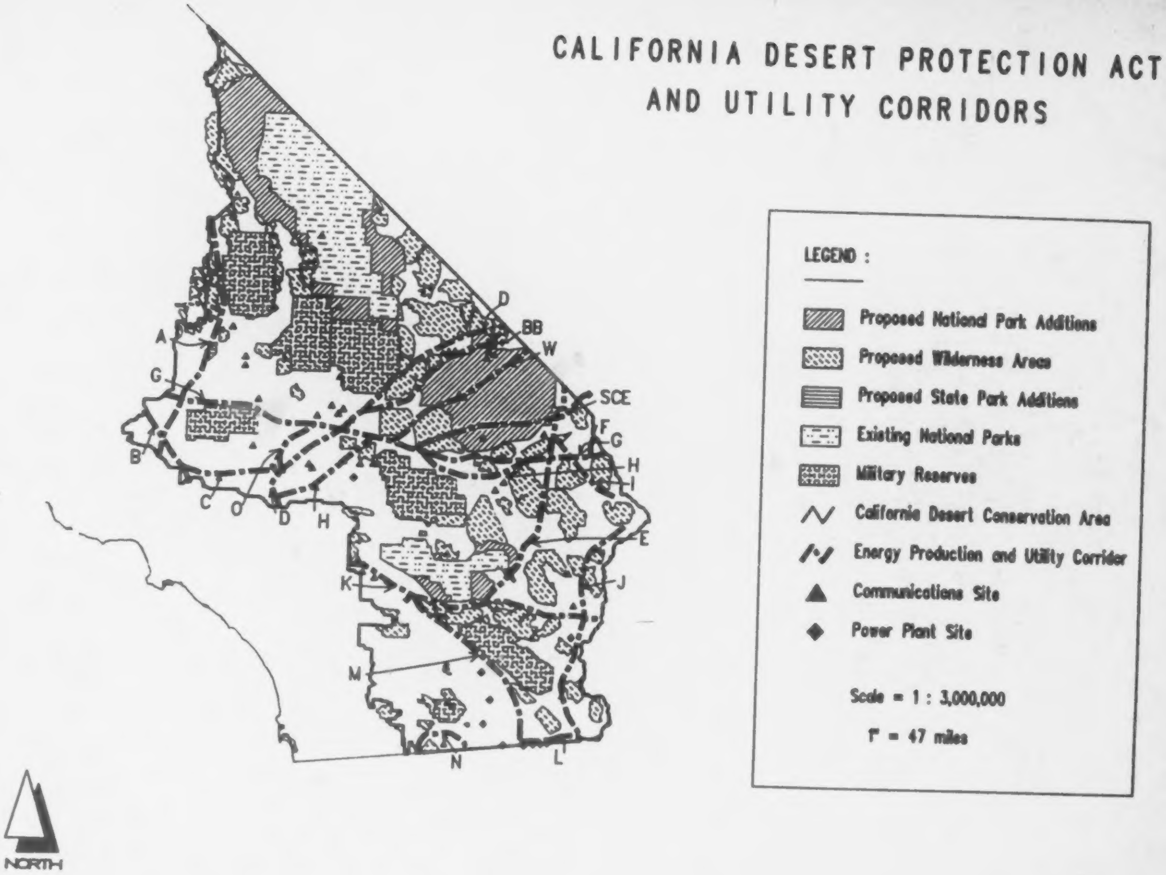

LEGEND :
▨ Proposed National Park Additions
▨ Proposed Wilderness Areas
▤ Proposed State Park Additions
▨ Existing National Parks
▨ Military Reserves
California Desert Conservation Area
Energy Production and Utility Corridor
▲ Communications Site
◆ Power Plant Site
Scale = 1 : 3,000,000
1" = 47 miles
A
G
B
C
O
D
H
K
M
N
L
J
E
I
H
G
F
SCE
W
BB
D
NORTH

Figure 3

3. **BLM Desert Plan Corridor BB (Interstate-15)**

The Utility Element of the 1980 BLM California Desert Plan provides for future energy transmission along Interstate Highway 15 (I-15) from the California-Nevada border to near Barstow, California via Corridor BB (see Figure 3). This corridor is important for bringing electricity into the Southern California load center from future generation sources east of California. This would include power from Northern Nevada, New Mexico, Arizona, Colorado, Idaho and perhaps Wyoming (see Figure 2).

As currently proposed in S.11, the I-15 utility corridor will be included within the proposed boundaries of Mojave National Park. It was explained to Edison by Sierra Club representatives that the affected area was proposed for inclusion in the National Park primarily as a means of incorporating the proposed Clark Mountains Wilderness area in the park. Edison does not contest the proposed wilderness status of the Clark Mountains. However, the area between Interstate 15 and the Clark Mountain is of considerable importance to the utilities serving Southern California with electricity and natural gas. Additionally, Edison questions whether this area meets national park quality standards since one transmission line, two natural gas pipelines and mining roads are currently present in this corridor and within the proposed park boundaries.

Since two pipelines lie between the Interstate and the Mohawk Hills to the north but within this corridor, future transmission lines must be placed between the hills and the Clark Mountains - an area approximately 0.5 to 0.75 mile in width. If this area is included within the national park, licensing of new transmission facilities within the national park will be difficult at best.

Edison urges that the area between I-15 and the proposed Clark Mountains Wilderness be excluded from the Mojave National Park, and be designated in S.11 as a utility corridor. Proposed language to amend S.11 in this manner is attached to this statement.

4. **Impacts on Present Desert-Based Electrical Generation.**

The desert region, within and adjacent to California, has been important to Southern California Edison for the siting of essential generation facilities since the late 1960s. Edison operates the Cool Water Generation Facility near Barstow, California, which includes approximately 650 MW of conventional oil/gas and combined-cycle generation. Also, Edison is the operator and majority owner of the Mohave Coal-fired Generating Station in nearby Clark County, Nevada. Edison receives 885 MW of the Mohave plant's 1,580-MW capacity.

The proposed legislation will significantly increase the number of areas afforded protection in California - nearly 25 percent of the State of California and 40 percent of the California Desert Region. Edison is concerned that, with such lands under wilderness and national park protection, a strong political movement will emerge for redesignation of the Mojave Desert as a Class I area under Section 164 of the Clean Air Act. Such a redesignation could include provisions which will require visibility protection similar to provisions of Section 169A of the Clean Air Act. This would require installation of expensive "best available retrofit technology" (BACT) on existing facilities to mitigate their impact on visibility in the Class I areas. Edison estimates that such retrofits on the Mohave Generating Facility alone would cost between $200 and $300 million.

5. **Impacts on Future Generation Siting.**

In recent years, Edison completed studies leading to the licensing by the California Energy Commission of two sites for future desert-based generation. These sites are located in Lucerne Valley and Ivanpah Valley in southern California. Both sites are outside, but near areas designated for protection by this legislation. Both sites have unique special value since their utilization would expedite generation projects built at these locations if need for additional electricity generation is higher or earlier than currently anticipated.

As stated earlier, Edison is concerned that passage of this legislation may lead to the establishment of the Mojave Desert as a mandatory Class I area. A Class I redesignation would require the most stringent emission controls upon any future electrical generating facilities in the California desert region. This requirement would limit Edison's present and future ability to establish desert-based generation. Such a classification would significantly limit Edison's options for serving its customers and a growing Southern California economy in both a cost-efficient and an environmentally acceptable manner. A significant portion of this economic growth is forecast for the desert region itself.

CONCLUSION

Edison respectfully urges the Subcommittee on Public Lands, National Parks and Forests to incorporate the amendments proposed to S.11 by Edison for the factors and considerations discussed earlier.

Senate Bill 11 and
House of Representatives Bill 780
Suggested Amendments

-A-

TITLE I -- WILDERNESS ADDITIONS

ADMINISTRATION OF WILDERNESS AREAS

Create subsection (a) with existing language and add subsection (b) as indicated by underlining:

Sec. 103 (a) . . . jurisdiction over the area.

(b) Any existing utility facility located within a wilderness area designated under this Act may be maintained and operated using normally accepted utility practices. Normally accepted utility practices may be used to maintain, operate, improve, construct and expand existing or future utility facilities located within an existing or future federally issued right-of-way, and adjacent to a wilderness area designated under this Act.

FILING OF MAPS AND DESCRIPTIONS

Create subsection (a) with existing language and add subsection (b) as indicated by underlining:

Sec. 104 (a) . . . Agriculture, as is appropriate.

(b) Each map and legal description, as applicable, shall exclude from designated wilderness areas those federally approved rights-of-way issued for utility facilities, and that Utility Corridor BB, as identified in the Bureau of Land Management's 1980 California Desert Plan, as amended through 1988, but excluding the Clark Mountain Wilderness Area. Each map and legal description, as applicable, shall exclude from designated wilderness areas five hundred feet of land on either side of federally issued rights-of-way, located within Contingency Corridor W, as that corridor is identified in the Bureau of Land Management's 1980 California Desert Plan, as amended through 1988, and five hundred feet of land on either side of the Southern California Edison Company Mohave-Lugo Transmission Line (BLM Permit No. RO6876), so that existing utility facilities on federally issued rights-of-way may be improved or upgraded, and so that each existing or future right-of-way can accomodate an additional 500 kv, or greater, above ground electric transmission line.

DESIGNATION OF WILDERNESS STUDY AREA

Add to subsection (a):

Sec. 106 (a) . . . shall submit his recommendation to the President. Areas designated under this section as wilderness shall exclude federally issued rights-of-way which contain utility facilities, and enough land to permit the operation, maintenance, and improvement of such facilities using normally accepted utility practices.

TITLE II -- DEATH VALLEY NATIONAL PARK FINDINGS

FINDINGS

Add subsection (6) as indicated by underlining

Sec. 201 (5) . . . pursuant to the Wilderness Act, and

(6) Nothing in this Title shall preclude the operation and maintenance, using normally accepted utility practices, of existing or future utility facilities, within any existing or future federally issued right-of-way, which are located within or adjacent to the Death Valley National Park.

TITLE III -- JOSHUA TREE NATIONAL PARK FINDINGS

FINDINGS

Add subsection (6) as indicated by underlining

Sec. 301 (5) . . . pursuant to the Wilderness Act, and

(6) Nothing in this Title shall preclude the operation and maintenance, using normally accepted utility practices, of existing or future utility facilities, within any existing or future federally issued right-of-way, which are located within or adjacent to the Joshua Tree National Park.

TITLE IV -- MOJAVE NATIONAL PARK

UTILITY RIGHTS OF WAY

Delete language after "Nothing in this Title" and add underlining:

Sec. 411 Nothing in this Title shall preclude the operation, maintenance, improvement or construction, using normally accepted utility practices, of existing or additional utility facilities, within any existing or future federally issued right-of-way, or within Utility Corridor BB, as identified in the Utility Element of the Bureau of Land Management's 1980 California Desert Plan, as amended through 1988, but excluding the Clark Mountain Wilderness Area.

which are located within or adjacent to the Mojave National Park.

TITLE V -- NATIONAL PARK WILDERNESS

DESIGNATION OF WILDERNESS

Add subsection (4) as indicated by underlining:

Sec. 501 (3) known as the Mojave Wilderness, and

(4) Nothing in this Title shall preclude the operation, maintenance, improvement or construction, using normally accepted utility practices, of existing or additional utility facilities, within any existing or future federally issued right-of-way or within Utility Corridor BB, as identified in the Utility Element of the Bureau of Land Management's 1980 California Desert Plan, as amended through 1988, but excluding the Clark Mountain Wilderness Area, which are located within or adjacent to lands designated as National Park Wilderness by this Act.

Senate Bill 11 and
House of Representatives Bill 780
Suggested Amendments

-B-

TITLE VI - MISCELLANEOUS PROVISIONS

UTILITY RIGHTS OF WAY

Add Subection 608(a) and (b) as indicated below:

Sec. 608. (a) Nothing in this Act shall preclude the operation, maintenance, improvement or construction, using normally accepted utility practices, of existing or additional utility facilities within any existing or future federally issued right-of-way or within Utility Corridor BB, as identified in the Utility Element of the Bureau of Land Management's 1980 California Desert Plan, as amended through 1988, but excluding the Clark Mountain Wilderness Area.

(b) Each map and legal description, developed pursuant to this Act, shall exclude from designated Wilderness and National Park areas those federally approved rights-of-way issued for utility facilities and Utility Corridor BB, as identified in the Utility

Element of the Bureau of Land Management's 1980 California Desert Plan, as amended through 1988, but excluding the Clark Mountain Wilderness Area. Each map and legal description, developed pursuant to this Act, shall exclude from designated Wilderness and National Park areas five hundred feet of land on either side of federally issued rights-of-way, located within Contingency Corridor W, as that corridor is identified in the Bureau of Land Management's 1980 California Desert Plan, as amended through 1988, and five hundred feet of land on either side of the Southern California Edison Company Mohave-Lugo Transmission Line (BLM Permit No. RO6876), so that existing utility facilities on federally issued rights-of-way may be improved or upgraded, and so that each existing or future right-of-way can accomodate an additional 500 kv, or greater, above ground electric transmission line.

U.S.BORAX

September 26, 1989

The Honorable Dale Bumpers, Chairman
Public Lands, National Parks and Forests Subcommittee
United States Senate
Washington, D.C. 20510-0401

Dear Senator Bumpers:

U.S.Borax is opposed to the California Desert Protection Act (S.11) in general because it ignores the commitments and mandates of prior administrations and Acts of Congress and it ignores the importance and value of the potential mineral deposits within the California Desert Conservation Area (CDCA).

We specifically oppose S.11 because it would damage our ability to use property and produce borate reserves we have owned in fee for almost 100 years and it will hinder our ability to explore and develop borates in areas of excellent borate potential.

U.S. Borax is a mineral resource company with over 100 years of experience in the exploration and development of minerals in the California and Nevada deserts. We have been the leading supplier of borates in the world for most of these 100 years and have contributed greatly to the economic well-being of California and the United States.

U.S. Borax and its affiliates pioneered the borax industry in the world and the potash industry in the United States. We are the major world producer of borate minerals. Our mine and refinery is located at Boron, California, within the California Desert Conservation Area.

Borax is a widely used industrial mineral. It is used in the manufacture of fiberglass insulation essential in reducing this country's energy consumption. Another form of fiberglass, used in reinforced plastics, reduces the weight and fuel consumption of autos and trucks. Boron fibers are also employed in the production of advanced high-strength light-weight materials used in aerospace vehicles. In addition to these uses and a wide variety of other industrial applications, borax is an important plant food used to improve agricultural production in many parts of this country and elsewhere.

UNITED STATES BORAX & CHEMICAL CORPORATION • 3075 WILSHIRE BOULEVARD • LOS ANGELES, CA 90010-1294 • (213) 251-5400
MAIL ADDRESS: P.O. BOX 75128, SANFORD STATION, LOS ANGELES, CA 90075-0128

We generally oppose the California Desert Protection Act of 1989 (S.11) because:

- S.11 would abrogate the commitments of Congress as set forth in Section 601 of the Federal Land Policy and Management Act (FLPMA) to the implementation of "a comprehensive long-range plan for the management, use, development, and protection of the public lands within the California Desert Conservation Area --- [taking] into account the principles of multiple use and sustained yield in providing for resource use and development, including, but not limited to, maintenance of environmental quality, rights-of-way, and mineral development."

- S.11 would ignore the many hours of work, the compromises, and the recommendations of the California Desert Conservation Area Advisory Committee. The Committee was established by Section 601(h) of FLPMA and the authors of S.11 were active participants in the Committee.

  It would be wasteful, wrong, and worrisome if the fine efforts of all involved with the present CDCA Plan were disregarded for a bill authored by a minority who didn't get everything they wanted from the CDCA advisory process.

- S.11 disregards the efforts of the Bureau of Land Management (BLM) to develop a CDCA Plan that would protect valid property rights and meet the mandates of FLPMA.

  We commend the BLM for the job they have done and we urge you to judge the criticisms of the BLM by some of the proponents of S.11 in light of BLM's budget constraints, its requirement to protect valid property rights, and the mandates of FLPMA.

  We also suggest that the CDCA Plan developed by the BLM and the CDCA Advisory Committee is a reasonable plan which protects primitive areas and other land-use values. The public can live with the present plan: it controls without preclusions, it allows for changing conditions, it protects without denying access, it meets the will of Congress and the needs of the U.S. citizenry. It is imperfect but workable - it is a reasonable compromise.

- The scope and land designations proposed by S.11 are so unreasonable they prevent any attempts to compromise.

  S.11 proposes to place 10.4 million acres (42%) of the CDCA and 72% of the 14.5 million acres available within CDCA for reclassification* in National Parks and/or Wilderness. It is an unreasonable counter proposal to the BLM plan and it has polarized the issue.

  * The 14.5 million acres does not include the military, state and private land within the CDCA.

- S.11 would place much of said 10.4 million acres of the CDCA in National Park and/or Wilderness protective land classification without a proper evaluation of its mineral or other land-use values.

  The CDCA is known to have good mineral potential for borates and other minerals. Experience has shown that even areas assessed for mineral value should not necessarily be judged to have no mineral value.

  The U.S. Geological Survey and Bureau of Mines utilize methods not applicable to many minerals, including the borates, and are only cursory surveys of the mineral potential

  For example, the U.S.G.S. mineral assessment of the Palen-McCoy, Golden Valley, El Paso Mountain and other Wilderness Study Areas (WSAs) fail to address their borate potential. Yet the Mojave Desert is the world's largest producer of borates, and it has the best potential for undiscovered deposits. Claystones similar in age and composition to those which contain borate reserves at Boron and Death Valley are exposed in these WSAs, and we are currently exploring equivalent claystones both within and outside these and other WSAs.

  The position that governmental mineral assessments are inconclusive is supported by the fact that U.S. Borax discovered its Quartz Hill molybdenum deposit in Southeast Alaska within what subsequently became a Wilderness Study Area that had been evaluated by the U.S.G.S. and reported as having no significant mineral value.

We specifically oppose S.11 because it would abrogate past presidential and legislative actions, and it could damage the ability of U.S. Borax to mine known borate deposits and prevent the exploration of the areas of best borate potential.

- U.S. Borax and its predecessors have a long history in Death Valley that goes back to 1882, the Harmony Borax operations, and the twenty mule teams. We built the Furnace Creek Inn and Ranch and initiated and promoted the establishment of the Death Valley National Monument (D.V.N.M.).

- D.V. National Monument was opened to Mineral entry by legislation enacted June 13, 1933, just four months after the proclamation that established D.V.N.M. The Monument's boundary was located by prior agreement to avoid impacting the Ryan Area borate reserves and other mineral development.

  S.11 would surround the Ryan area with National Park and Wilderness land. Such an Act would totally disregard the understanding that achieved the required support for the establishment of the Monument and resulted in the legislation that opened it to mineral entry.

  U.S. Borax owns or holds 6,000 acres of patented and unpatented mining claims in the Ryan area containing an estimated 27 million tons of borate ore. This area is outside the Monument and the authors of S.11 must know their proposed land designations in this area would prevent or hinder the future development of these reserves.

- U.S. Borax also owns an estimated 30 million tons of borate ore on 4,000 acres of patented land within D.V.N.M. S.11 proposes the designation of wilderness adjacent to these properties, and here again, the authors of S.11 must know this could damage the value of these reserves.

- U.S. Borax holds about 26,000 acres of unpatented claims and leases in an area extending southeast of the Ryan area to and beyond the Lila C. Mine. Geologically, this area has excellent potential for 18 million tons of borates which we are actively exploring.

S.11 would place much of this area in National Parks/Wilderness or Wilderness, thus, damaging the ability of anyone to explore this area and to develop ore deposits that may be found.

- U.S. Borax believes many areas of the CDCA have borate potential, and our exploration activities continue to reveal additional prospective areas.

  Except for very special areas, the uniqueness and scarcity of borate ore deposits in the United States and the world dictates that borate potential areas be evaluated before they are locked up in National Parks or Wilderness.

Maps of the areas, property and mineral trends mentioned above are attached for your easy reference.

In closing, we urge you not to ignore, as S.11 proposes, the commitments of past administrations in the establishment of Death Valley National Monument and the past mandates of FLPMA. The California Desert Conservation Area is a reasonable plan developed through compromise and it deserves your careful consideration. To disregard this plan and past commitments would be destructive to the public advisory process and to Congress.

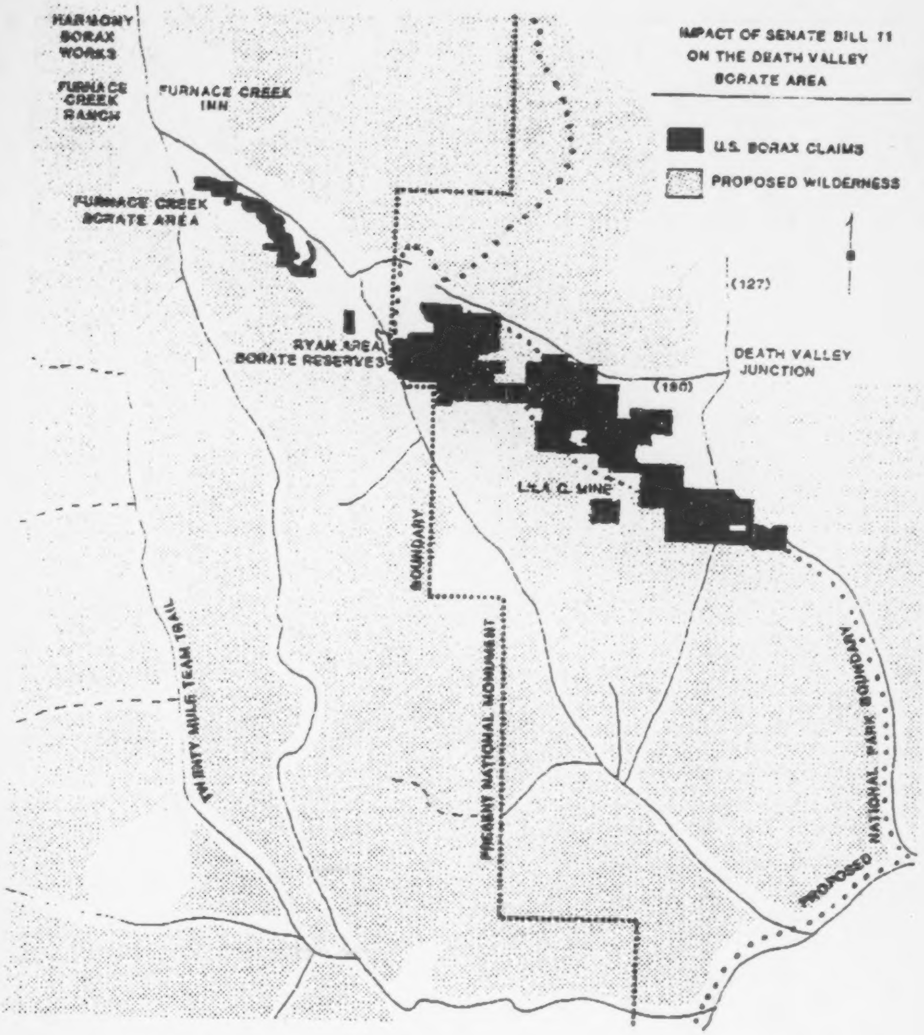
Sincerely,

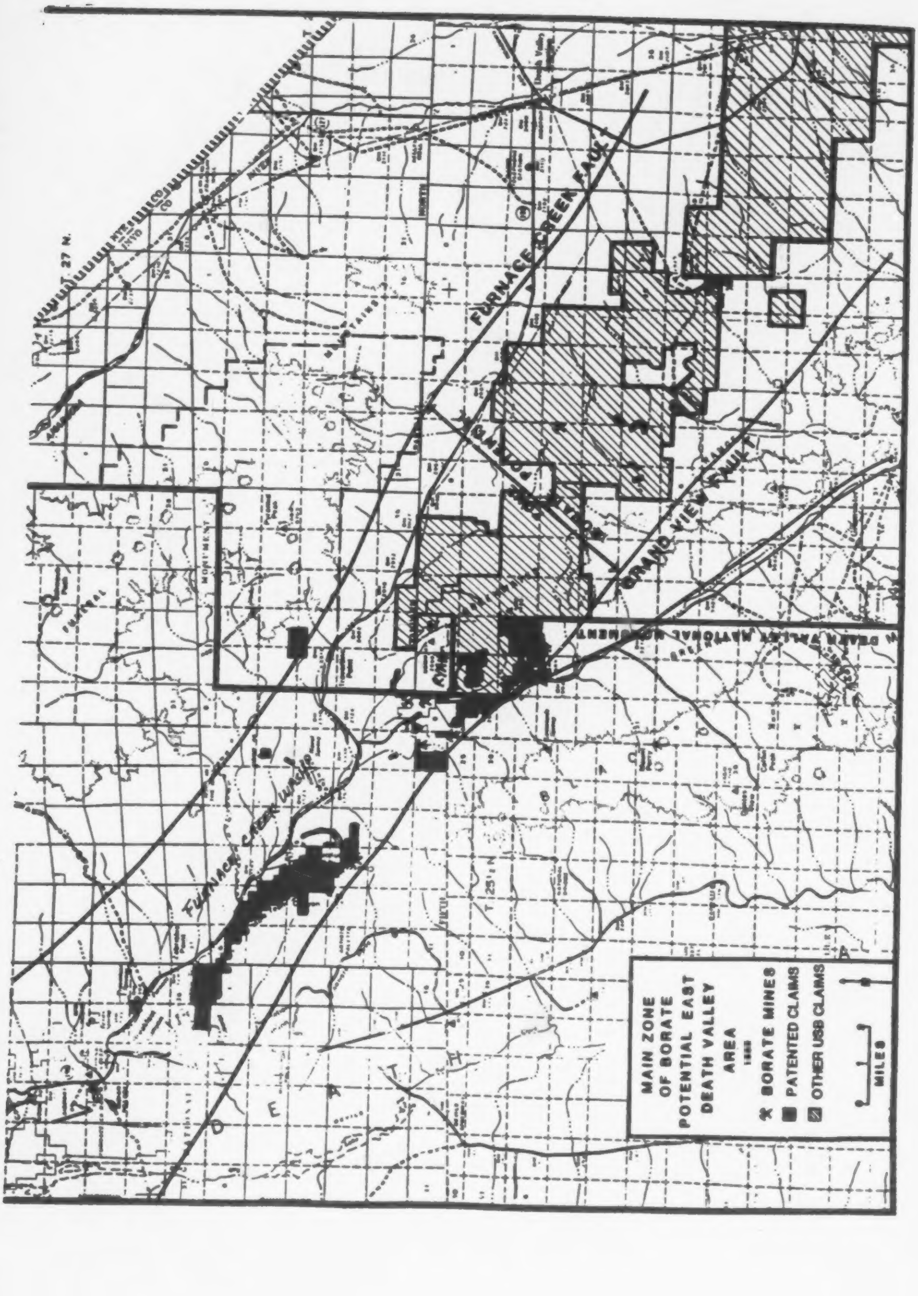
Eugene D Smith
Eugene D. Smith
Vice President
Government & Public Affairs

EDS:gw

Encl. maps

cc: Subcommittee Members
Senator Frank Murkowski
Senator Alan Cranston
Senator Pete Wilson
Representative Don Young
I. L. White-Thomson
R. C. Munro
J. M. Colvin
Jack Ferguson
Keith Knobloch, AMC
Glenn Rouse, CMA


IMPACT OF SENATE BILL 11 ON THE DEATH VALLEY BORATE AREA
U.S. BORAX CLAIMS
PROPOSED WILDERNESS
HARMONY BORAX WORKS
FURNACE CREEK RANCH
FURNACE CREEK INN
FURNACE CREEK BORATE AREA
RYAN AREA BORATE RESERVES
(127)
DEATH VALLEY JUNCTION
(190)
LILA C. MINE
PRESENT NATIONAL MONUMENT BOUNDARY
TWENTY MULE TEAM TRAIL
PROPOSED NATIONAL PARK BOUNDARY


MAIN ZONE
OF BORATE
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DEATH VALLEY
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✱ BORATE MINES
■ PATENTED CLAIMS
▨ OTHER USB CLAIMS
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GRAND VIEW FAULT
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Defenders
OF WILDLIFE

1989 OCT 12 AM 10 01

October 7, 1989

Senator Dale L. Bumpers, Chairman
Subcommittee on Public Lands,
National Parks, and Forests
Senate Committee on Energy and
Natural Resources
308 Dirksen Senate Office Building
Washington, D.C. 20510-6158

Re: Support for S. 11, the California Desert Protection Act.

Dear Mr. Chairman:

Defenders of Wildlife was pleased to learn that your Subcommittee held an October 2 hearing on S. 11, Senator Alan Cranston's excellent California Desert Protection Act. Unfortunately, we were not able to provide testimony at the hearing. However, we wish to submit this letter for inclusion in the October 2 hearing record.

We strongly support and applaud S. 11. We urge you and your colleagues to pass S. 11 without any weakening amendments, and to work for its expeditious enactment.

We believe that S. 11 is reasonable and necessary. It is reasonable because many of California's magnificent desert habitat types are not protected within national parks or designated wilderness areas. Enactment of S. 11 would remedy these deficiencies by protecting many of these habitats.

It is necessary because the U.S. Bureau of Land Management (BLM) has not adequately protected sensitive desert wildlife species and habitats. The dramatic decline in desert tortoise populations is one clear symbol of this neglect. While BLM has initiated some new conservation programs, their effectiveness is not yet known, and BLM's overall track record does not bode well. Enactment of S. 11 would reduce BLM's opportunities to further mismanage desert species and habitats.

Enclosed are background materials relating to the serious plight of California's desert tortoise populations. These materials are intended to demonstrate the need for a substantial change in BLM's "business as usual" multiple use philosophy.

Because the desert tortoise is now listed as a threatened species under California law, and has received a federal emergency listing,

CALIFORNIA OFFICE: 5604 ROSEDALE WAY, SACRAMENTO, CALIFORNIA 95822 • (916) 442-6386
NATIONAL OFFICE: 1244 NINETEENTH STREET, NW • WASHINGTON, DC 20036 • (202) 659-9510

we believe that the "burden of proof" should be shifted to BLM and others who profess that protective legislation is not desirable or necessary. In other words, there is ample evidence of deteriorating desert resources, and existing problems are likely to grow worse in the absence of enactment of protective legislation.

We are also disturbed by many misleading allegations of opponents of S. 11. For example, these opponents reportedly allege that S. 11 would substantially restrict vehicular desert travel, cripple mining operations, and interfere with military exercises. In stark contrast to these claims, S. 11 was crafted to leave about 30,000 miles of roads and jeep trails open for continued motorized recreation, exclude valid existing mining operations from park and wilderness designations, and not interfere with existing military uses.

Another opposition claim is that park and wilderness designations would prevent the installation and maintenance of wildlife watering devices known as "guzzlers." Given the importance of these devices for maintaining many desert bighorn sheep herds and other wildlife species, we recommend a clarifying amendment or indication of legislative intent to address this concern. The language could indicate that these desert wildlife watering devices can be installed and maintained within national parks and wilderness areas, so long as such activities do not impair wilderness or park values, and that no roads shall be constructed or other permanent scarring occur in connection with these activities. In essence, limited helicopter or manual transport on the ground of device components would be allowed. We believe this approach is consistent with national park and wilderness management, and it would accommodate wildlife needs. It is unfortunate that people have altered springs and streams in the desert to the point that people must now assist wildlife by providing surface water supplies.

Again, please support and work for early enactment of S. 11.

Thank you very much for considering our views.

Sincerely,

Richard Spotts
js

Richard Spotts
California Representative
Defenders of Wildlife

RS/js
Encls.

cc w/o encls: Senator Alan Cranston
Interested parties

THE IZAAK WALTON LEAGUE OF AMERICA
Defenders of Soil, Air, Woods, Waters and Wildlife

October 13, 1989

The Honorable Dale Bumpers
Chairman
Energy and Natural Resources
Subcommittee on Public Lands
U.S. Senate
308 Dirksen Senate Office Building
Washington, DC 20510

Dear Mr. Chairman:

I am writing to request that the enclosed resolution, representing the official position of the Izaak Walton League of America on protection of the California Desert, be included in the record of the hearing on S.11 that was held by your Subcommittee on October 2, 1989.

The enclosed resolution was adopted at the Izaak Walton League's 1988 national convention, by delegates representing the League's nearly 400 local chapters from across the country.

We would like to express our appreciation for the Committee's interest in the protection of the natural of the California Desert. We in the Izaak Walton League look forward to working with the Committee to help develop legislation that will protect the fragile natural resources of the California Desert, while also preserving access for hunting and allied recreational uses and for wildlife enhancement projects, as called for in the enclosed policy statement.

Sincerely,

Maitland Sharpe
Conservation Director

MS/ka

Enclosure

National Office [illegible] Boulevard, [illegible] Arlington, Virginia 22209 • Phone 703-528-1818
Regional Office [illegible] Club Road, Minneapolis, Minnesota 55438 • Phone 612-941-6654

THE IZAAK WALTON LEAGUE OF AMERICA -- 1988 -- RESOLUTION

DESERT PROTECTION

The California deserts contain some of the West's most robustly magnificent and delicately beautiful lands. Here one can visit not only 700-foot high sand dunes, but also lovely waterfalls, spectacular granite peaks, extinct volcanoes, and mile upon mile of wildflowers. The California deserts are recognized as a valuable and fragile national natural resource.

In the harsh desert climate, many plants and animals survive more precariously than in milder environments. Some parts of the desert are fragile even though they look rugged. When damage is done to these areas, repair to the environment often takes longer because living conditions are so difficult.

With over 12 million people within a three-hour drive of the deserts, and with continued human population growth expected, the potential for the loss of natural values in the deserts increases. While the vast majority of desert visitors use its resources in a responsible manner, a small minority of people use it in such a way that they have high impact. This minority, while obeying laws at home, seems to view the desert as a place to escape such regulation. A result of this attitude is obvious scarring of the environment.

The Izaak Walton League of America assembled in convention in Green Bay, Wisconsin, July 27-29, 1988, resolves that protection and preservation of the deserts' natural resources are the first and foremost considerations in their management. Types of use are of secondary importance when considering uses within the deserts and attention should be given to the potential for conflicting uses. If a use tends not to preserve, it should be considered as secondary to uses which maintain the natural values of the desert. As a matter of policy, desert protection should consider maintenance of long-term values over any short term benefits.

Federal management of the deserts needs to be funded at levels sufficient to offer effective protection, management and enforcement of regulations. The key to better law enforcement is a more highly visible ranger force. To that end, the IWLA urges that a user-fee system be implemented, with the monies collected being allocated to those areas where they are collected to augment other funds as may be made available.

Interpretive opportunities should be made available so that the public is better educated regarding desert values. Examples of such opportunities include signs, exhibits, interpretive centers, and naturalist programs.

It is appropriate that the IWLA which at its 1987 convention recognized the 100th birthday of Aldo Leopold through a resolution which reads in part, "The IWLA...urges Federal land management agencies to model their activities after the conservation ethic he has inspired," should urge the Federal government to adopt legislation and policies to implement these principles in a swift and timely manner, along the lines suggested in the Cranston California Desert Protection Act, except that lands added to National Monument or Park units be designated as National Park Preserves permitting hunting, and wherein such new or enlarged park units, wildlife management shall not be considered an inconsistent use.

HIGH DESERT MULTIPLE-USE COALITION, INC.
P.O. BOX 1167, RIDGECREST, CA. 93556

Honorable Dale Bumpers, Chairman
Senate Energy Subcommittee on
Public Land, National Parks, and
Forests. ATTN: Beth Norcross
324 Dirksen Senate Office Bldg.
Washington, D.C. 20501

Oct. 13, 1989

Dear Senator Bumpers:

This letter is to express the High Desert Multiple-Use Coalition's opposition to United States Senate Bill 11 and to reflect our concern regarding the negative impacts that this legislation will have if enacted.

Our members, as desert residents, are in total support of protecting the California Desert and support the designation of wilderness areas for future generations as well as the protection and enhancement of wildlife. However, we feel that S.11 will not achieve this goal but will serve to diminish the very things it hopes to protect. The members of the coalition feel that this proposal acknowledges only the extremes of recreational activity pursued on public lands. This legislation recognizes the off-road vehicle interests and their requirement for open play areas and locations to hold competitive events. Also recognized is the necessity for wilderness areas to allow hikers and other primitive users the opportunity to pursue a quality experience with extensive solitude. However, Senate Bill 11 (S.11) ignores the needs of the vast majority of the public land users. Most of which are individuals who are seeking non-consumptive and non-competitive casual recreational opportunities. Their vehicles are merely a means to pursue other family oriented activities. These individuals are seeking dispersed, low impact, leisure activities that afford a quality experience and reasonable solitude.

In the vicinity of Ridgecrest, Senate Bill 11. proposes many wilderness areas involving excessive acreage that is totally inappropriate. The South Park, Middle Park, and Bighorn Canyon area of the Panamint Mountains is an extremely popular local recreation site and includes many roads, a frequently used extremely large aircraft landing strip, cabins, and numerous other mining developments. East of Ridgecrest in the Sierra Foothills is another popular recreation site that includes Sand Canyon, Chimney Peak, and Walker Pass. This area, as well, includes many primitive roads that are used for picnicking, sight-seeing, hunting, etc. To our north many areas in the White and the Inyo Mountains are inappropriately included as wilderness and should be reconsidered as well. These few examples are just a minute portion of the adverse impact that this ill thought, far reaching, and excessive legislation would have.

Included Below are additional concerns that we urge your Subcommittee to consider regarding Senate Bill 11.

RECREATIONAL ACCESS

Among the most severely affected by this legislation will be the local residents of the desert areas. Many of the proposed wilderness areas will close access to recreational activities long enjoyed by these local families. The desert protection proposals are of such large scope that specific impacts cannot be identified without allowing input on a local level.

RECREATIONAL ACTIVITIES

Virtually every aspect of recreation will be severely impacted with the passage of these bills including hiking, bicycling, wildlife photography, hang gliding, ballooning, gem and mineral collecting, hunting, back country touring, picnicking, pinyon nut gathering, equestrian use, and backpacking. The designation and expansion of the National Parks will completely eliminate most of these family recreational activities.

WILDLIFE

The designation of excessive wilderness and National Park land will severely limit the opportunity to enhance the habitat for the benefit of wildlife. Within National Park Service administered lands, habitat improvements will be much more restricted. In a recent proposal to expand the boundary of Death Valley National Monument it was acknowledged that the bighorn sheep guzzler in the Last Chance Mountains would only receive minimum maintenance and then only until a natural event such as a flash flood causes major damage. The same document indicates that the bighorn sheep population managed by the National Park Service in Death Valley has declined from 900 in 1969 to 404 in 1987 and continued decline is expected. It is felt that this alarming decline is attributed to the lack of the National Park Service to allow wildlife habitat improvement projects or widely accepted scientifically based wildlife management practices. Additionally, we are aware of projects to aid wildlife that were cancelled merely because congress will be considering the possibility of wilderness.

Senator Cranston initiated a GAO investigation of the BLM's management of the public lands and wildlife but we feel that he should have investigated the National Park Service's management record, practices, and results as well.

HANDICAPPED AND ELDERLY

The current interpretation of wilderness management has evolved from the exclusion of motorized means of transportation to the exclusion of mechanized means of transportation and now excludes wheelchairs. Many families include members that are elderly and/or very young and the closure of primitive roads in the desert will mean the end of these family outings.

NATIVE AMERICANS

The Desert Protection Act will severely limit, and in many cases eliminate, the ability of the Native Americans to actively participate in religious and pinion nut gathering activities. Under National Park Service management, no gathering of pinion nuts is allowed.

FAMILY OPERATED FARMING AND RANCHING

Many long time family owned small ranching operations will no longer be able to exist due to the elimination of grazing allotments. Many of these ranches have been family operated for many generations and depend heavily upon grazing on public lands. In addition, the wildlife as well as the recreationists have significantly benefitted from the rancher's water developments.

PRIVATE PROPERTY

Although proponents of these bills tout that private property will be acquired only by mutual consent, section 415 of S.11 specifies otherwise and section 616 indicates that consolidation of federal ownership within the California Desert Conservation Area will be a priority. Senate Bill 11 involves nearly 400,000 acres of privately owned property which will significantly reduce the tax base of local counties within the California desert areas.

LOCAL ECONOMIES

This legislation would impact local economies by removing private property from local tax bases, limiting industry, and reducing recreational income.

NATIONAL DEFENSE

By limiting the use of available airspace for military testing, S.11 would detrimentally affect the operations of the United States Military. Additionally, this bill will drastically limit the development of strategic mineral deposits which are critical to national defense and new technologies. Proponents claim that the desert has been prospected over 100 years and all significant discoveries have been made, however, the exploration for many of the strategic minerals and rare earths is only just beginning.

PUBLIC INVOLVEMENT

Although extremely limited hearings were held in Washington D.C., hearings should be held in the local desert cities to ensure the opportunity for the population most affected to express their concern. The proponents of S.11 and H.R. 780 have also neglected to allow input from affected State, County, and City government officials. The extreme scope of these legislative proposals cannot even begin to identify the inappropriateness of the proposed wilderness areas and the effects they will have without local input.

The High Desert Multiple-Use Coalition urges our legislators to defeat United States Senate Bill 11 and encourage additional investment in the existing Desert Plan of 1980. We sincerely appreciate this opportunity to express our concerns and thank you for your considerations. In the event that I may be of further service, please do not hesitate to call me in the evening at (619) 375-2629 or our Secretary, Mary Grimsley, at (619) 446-3458.

Sincerely,

R Schiller

Ron Schiller, Chairman

HIGH DESERT MULTIPLE-USE COALITION, INC.
P.O. BOX 1167, RIDGECREST, CA. 93556

A RESOLUTION IN OPPOSITION TO THE

"CALIFORNIA DESERT PROTECTION ACT OF 1989"
SENATE BILL 11 & HOUSE OF REPRESENTATIVES BILL 780

- S.11 & H.R.780 -

WHEREAS the Congress of the United States passed on October 21, 1976 the Federal Land Policy and Management Act (FLPMA) by Senator Alan Cranston and others, which emphasized resource protection within continued multiple use of the lands, and

WHEREAS the Congress further directed that these principles be guided by the implementation of a comprehensive land use plan developed with the broad involvement of all segments of the public, and

WHEREAS this Act contained special provisions which created the California Desert Conservation Area (CDCA), and

WHEREAS this Act provided for development of a management plan for the CDCA to include both protection and continued multiple use, and

WHEREAS a management plan was developed which recognized those special resource areas and values within the CDCA, and

WHEREAS this plan was approved by both the Carter and Reagan administrations, and

WHEREAS FLPMA further directs the Bureau of Land Management (BLM) to inventory and study all public lands for wilderness values, including mineral surveys, and report its recommendations to Congress for final decisions on wilderness designations, and

WHEREAS the evaluations and preparations of these reports are not yet completed, and

WHEREAS the United States Congress set the year 1991 as the year by which these reports and recommendations would be brought to them, and

WHEREAS United States Senator Alan Cranston, at the request of 21 preservation groups, has introduced in the Senate, S.11, the California Desert Protection Act of 1989, and

WHEREAS United States Congressman Mel Levine has introduced a companion bill in the House of Representatives, H.R.780, also the California Desert Protection Act of 1989, and

WHEREAS S.11 and H.R.780 would designate over 110 wilderness areas without complete evaluation, and

WHEREAS many of the proposed 110 wilderness areas are roaded and lacking in those qualities required for wilderness, as set forth in the Wilderness Act of 1964 and

WHEREAS S.11 and H.R.780 would create a new 1.5 million acre Mojave National Park, a concept thoroughly studied during the CDCA planning process and rejected, and

WHEREAS S.11 and H.R.780 would transfer approximately 1.3 million acres from the CDCA to Death Valley National Monument, land reviewed by Congress and rejected as part of the planning process, and

WHEREAS S.11 and H.R.780 would transfer approximately 245,000 acres from the CDCA to Joshua Tree National Monument, land reviewed by Congress and rejected because of their enormous mineral values, and

WHEREAS S.11 and H.R.780 would convert Death Valley National Monument and Joshua Tree National Monument to National Park status, and

WHEREAS these newly created National Parks will follow the tradition of other National Parks by charging entry fees, and

WHEREAS these newly created National Parks will follow the tradition of other National Parks by not protecting the environment from natural disaster, such as wildfires, and

WHEREAS these newly created National Parks will follow the tradition of other National Parks by not recognizing the need for sound wildlife management practices, as evidenced by the severe decline of Bighorn Sheep in Death Valley National Monument, and

WHEREAS new public funds will have to be appropriated in the federal budget to construct extensive public facilities, such as a visitors' center in the Mojave National Park and to provide for additional staffs, and

WHEREAS the proposed Bills say, "There are hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this title", and

WHEREAS the passage of FLPMA of 1976 included a congressional mandate to BLM to begin planning for protecting and managing the resources of the CDCA under a multiple use concept, i.e., using the lands for mining, wilderness, recreation, grazing, as well as for the scenic beauty and cultural resources of the area, and

WHEREAS S.11 and H.R.780 could put most of the free world's rare earths as well as other strategic and necessary minerals in jeopardy, and

WHEREAS S.11 and H.R.780 would eliminate most ranching in the CDCA, and

WHEREAS S.11 and H.R.780 could place additional economic handicaps on private land owners, many small communities and rural counties, and

WHEREAS S.11 and H.R.780 would limit access to almost 10 million acres of lands thus severely impacting recreational activities of all kinds, and

WHEREAS S.11 and H.R.780 is detrimental to dispersed, low impact family recreation, and

WHEREAS S.11 and H.R.780 would discriminate against the majority of the handicapped, the elderly, and the very young, and

WHEREAS S.11 and H.R.780 severely limits sound wildlife management practices, and

WHEREAS S.11 and H.R.780 severely limits private property rights, and

WHEREAS S.11 and H.R.780 would negatively impact existing water rights and future water development and utility corridors, and

WHEREAS S.11 and H.R.780 would negatively impact general aircraft flights and has the potential for impacting commercial and military flights, and

WHEREAS S.11 and H.R.780 could negatively impact military testing and low level flight testing, and

WHEREAS S.11 and H.R.780 would be costly to implement at the time when budget cuts are limiting services, and

WHEREAS the introduction of S.11 and H.R.780 violates established democratic processes which should include input from all publics, and

WHEREAS neither Senator Cranston or Congressman Levine, nor their staffs, consulted with any local governments or their staffs in California before introducing the Bills, and

WHEREAS these Bills would drastically limit multiple use of the desert by tourists, miners, ranchers, and other users, and

WHEREAS we are informed that desert conservation and user groups, such as the Society for the Conservation of Bighorn Sheep, the California Wildlife Federation, the Isaak Walton League, the High Desert Multiple-Use Coalition, the California Mining Association, cattlemen organizations, the American Motorcycle Association, and others, were not consulted prior to the introduction of the Bills, and

WHEREAS these Bills would drastically effect the land use of almost all of the CDCA counties, and

WHEREAS the Federal government, through the BLM, has already spent a great deal of money, time and energy in developing the California Desert Plan with the participation of ALL desert users, including the preservation groups, local governments and others, and

WHEREAS S.11 and H.R.780 are premature, ill conceived and contains many proposed actions which have been previously reviewed under other names by Congress and/or thoroughly evaluated over the four years of planning for the CDCA and rejected for good reason, and

WHEREAS the provisions of these Bills are extremely vague, do not include specific boundaries, and precise information is extremely difficult to obtain.

NOW, THEREFORE, BE IT RESOLVED, that the High Desert Multiple-Use Coalition opposes S.11 and H.R.780, the California Desert Protection Act of 1989, in total, and

BE IT FURTHER RESOLVED, that the High Desert Multiple-Use Coalition currently supports the efforts of the Bureau of Land Management in the development of the California Desert Plan in the California Desert Conservation Area and the multiple use concepts therein, and

BE IT FURTHER RESOLVED, that the United States Congress be requested to hold hearings within the Callifornia Desert area in order to receive input from individualss who are acquainted with the areas involved.

THE ABOVE RESOLUTION WAS PASSED AND ADOPTED by the High Desert Multiple-Use Coalition officers, County of Kern, State of California, this 15th day of June, 1989, by the following signatures.

R Schiller
Ron Schiller, Chairman

Roger D Nickell
Roger Nickell, Co-chairman

Mary L Grimsley
Mary L. Grimsley, Secretary

Sophia A Merk
Sophia A. Merk, Treasurer

John Keys
John Keys, Board of Directors

John W. Nicoll
John Nicoll, Board of Directors

Wayne Rettig
Wayne Rettig, Board of Directors

Vi Swann
Vi Swann, Board of Directors

Center for Conservation Biology

Department of Biological Sciences • Stanford University • Stanford, California 94305 • (415) 723-5924

1989 OCT 17 PM 12: 16

October 12, 1989

Senator Dale Bumpers
229 Senator Dirksen Office Bldg.
U. S. Capitol
Washington, DC 20510

Dear Chairman Bumpers:

I want to thank you again for the opportunity to address the Senate Subcommittee on Public Lands, National Parks and Forests on 2 October 1989. While I am comfortable that the case in favor of Senate Bill 11 was presented convincingly, I feel that one contention put forward by opponents of S11 may have gone inadequately answered. The two and a half million acre BLM plan was touted by several speakers as a "consensus" plan, the result of years of negotiations, a balanced response to disparate interests in the California desert. Not so. The BLM plan is a faulty plan that fails the species it should protect.

The problem is that the concerns of all groups, save one, appear to have been duly considered in the BLM plan. The biological diversity of the California desert essentially was written off in the BLM plan. While the BLM to date has made substantial efforts to respond to several highly endangered desert species, its wilderness proposal has inadequately addressed the key factor that will further threaten those species--future destruction of natural habitats. The BLM plan assures that those species presently endangered will have continued problems, and that the list of species needing emergency attention will see extensive additions. The cascade of extinctions guaranteed by the BLM plan will peak well after those officials that constructed the plan will be gone from their offices and positions.

Despite significant available information pertinent to reserve design and management for desert plants and wildlife, the BLM chose to ignore even the most basic and obvious recommendations that could assure long-term persistence of threatened and endangered species. This assessment was correctly reflected in the General Accounting Office report to the subcommittee. As a scientist who has assisted in the development of habitat conservation plans on a broad array of geographic scales, I can assure the committee that technical tools are available to address the key issues necessary to insure persistence of the biological diversity of the California desert.

Senator Bumpers
October 12, 1989
Page 2

The wave of extinctions that will certainly follow an inadequate preservation plan for the desert can be avoided by implementation of S11. While I support S11 without significant reservation, I realize that a compromise plan may ultimately be engineered. A California Desert plan with fewer acres dedicated to parks and wilderness than currently proposed in S11 must be based on the ecosystem preservation and species recovery goals of the Endangered Species Act. Any compromise plan must have as its foundation the stewardship and accountability lacking from the current BLM plan. Special interests can be adequately served, only after the needs of the irreplaceable biological diversity of the desert are served.

I hope that the righteous indignation of the proponents of the BLM plan has not successfully obscured the fact that their faulty plan has brought us to S11.

Thank you for your admitting this additional comment into the record.

Sincerely,

Dennis D. Murphy /kmr

Dennis D. Murphy, Ph.D.
Director

DDM:ggs

CALIFORNIA TRAILS CONSERVANCY

35240 San Carlos • Yucaipa, CA 92399-5427 • (714) 795-1075

1989 OCT 17 PM 12: 20 October 10, 1989

The Honorable Dale Bumpers, Chairman
National Parks and Public Lands Subcommittee
364 Dirksen Senate Office Building
Washington, DC 20510

RE: Statement in Support of the California Desert Protection Act,
S. 11

Dear Chairman Bumpers:

We strongly support the California Desert Protection Act, S. 11 as introduced by Senator Alan Cranston. Please include this statement in the hearing record.

We are an organization dedicated to preserving non-motorized recreational trails in California. Lands suitable for trails that are scenic and provide solitude for the user are fast disappearing in California. This bill, the California Desert Protection Act, will protect a desert wildland resource of extraordinary and unique scenic values that offers unlimited opportunities for solitude to the recreational trail user.

Trails have been a part of the desert for as long as man has been in the desert. Indians used trails when moving from one campsite to another as the seasons changed. Some of the old indian trails are still in existence and are now used by recreational trail users.

As the white man moved west many trails were established across the desert. The Old Butterfield Stagecoach Trail, Pony Express, Mormon Trail, Old Government Military Road, Bradshaw Trail, Old Spanish Santa Fe Trail, Mojave Trail and the Colorado River Trail were some of the major trails. Some more recent trails entering the desert are the California Riding and Hiking Trail, Pacific Crest Trail and the proposed Desert Trail which will go from Mexico to Canada.

As a trail oriented organization our primary goal is to promote and protect existing trails and create new trails. The California Desert Protection Act will help protect some trails now in use and provide land suitable for new trails. However it will do much more, not only will it provide an opportunity for people seeking recreation it will also preserve the fragile desert wildlands for future generations. These wildlands display unique scenic, historical, archeological, environmental, ecological, wildlife, cultural, scientific, and educational values.

The California Desert Protection Act will:

Create 81 wilderness-quality areas which include lands as varied as the pinyon-clad Inyo Mountains, the rolling Cadiz Dunes, and the dramatically eroded badlands of Mecca Hills. The 81 wilderness areas will preserve 4.5 million acres of spectacularly diverse BLM wildlands.

Establish the nation's 51st national park, the 1.5 million acre Mojave National Park. The area features spectacular mountain ranges, 600-foot-high sand dunes, the world's largest Joshua Tree, numerous archaeological sites, and more than 300 animal species.

Expand the boundaries of Death Valley and Joshua Tree National Monuments and make these areas national parks.

Protect a special botanical area, the 1,920-acre Desert Lily Sanctuary, and an important historic site, 490 acres in the Indian Canyons near Palm Springs.

Transfer 20,500 acres of spectacular scenery and critical habitat to Red Rock Canyon State Park.

The Bureau of Land Management's "Recreation 2000: A Strategic Plan," released in 1988 looks at trends in Western recreation and demographics through the end of the century. The very existence of this plan shows that the BLM is making a clear and highly public commitment to recreation. The report states, "The BLM needs to improve service to the recreation-seeking public by directing more of its resources to and placing more emphasis on its recreation program and other programs supporting recreation." Trails are an important element of the recreation field and the California Desert Protection Act will insure that suitable lands are available for non-motorized trails.

Thank you for considering our views on this important legislation.

Sincerely,

Earl R. Giddings, Chairman

Parker Area Chamber of Commerce
P.O. BOX 627 1217 CALIFORNIA AVENUE
PARKER, ARIZONA 85344 TELEPHONE (602) 669-2174
LA PAZ COUNTY
'Enjoy Life on the Colorado River'

1989 OCT 30 PM 5:3

October 26, 1989

Senator Dale Bumpers, Chairman,
Senate Energy Subcommittee on
Public Lands, National Parks
& Forests
364 Dirksen Senate Office Bldg.
Washington, D.C. 20510

Dear Senator Bumpers:

The Board of Directors of the Parker Area Chamber of Commerce representing approximately 350 business members are strongly opposed to Senate Bill-11.

We can see no reason to shift millions of acres of the California desert conservation area from multiple use management that permits recreational economic opportunities and wild life habitat inhancement to single use wilderness and park land.

We will appreciate our opposition to Senate Bill-11 being included for your Subcommittee on Public Lands, National Parks and Forests.

Yours very truly,

Juanita Phelps

Juanita Phelps,
President

JP/ls

WHEN IN THE PARKER AREA, BE SURE TO SEE . . .
- ★ PARKER DAM . . . The World's Deepest Dam
- ★ BUCKSKIN MT. STATE PARK . . . Boating, camping, fishing, & skiing in a scenic mountain setting
- ★ LA PAZ COUNTY PARK . . . 640 acres of outdoor and water recreation
- ★ THE COLORADO RIVER INDIAN TRIBAL COUNCIL CHAMBERS, LIBRARY AND MUSEUM
- ★ JOIN US FOR THE . . . Parker Enduro, Score 400, Innertube Race, and other annual events

The Honorable Dale Bumpers October 18, 1989
Chairman
National Parks and Public Lands Subcommittee
364 Dirksen Senate Office Building
Washington, D.C. 20510

1989 OCT 31 AM 10:25

RE: Statement of the North County Group of the Sierra Club in support of the California Desert Protection Act, S. 11.

Dear Mr. Chairman:

We earnestly support the California Desert Protection Act (CDPA), S. 11 as introduced by Senator Alan Cranston. Please include this statement and supporting materials in the hearing record.

Our Sierra Club group urges passage of the CDPA for two reasons. ONE, the CDPAs excellent plan for long-term protection of irreplaceable desert natural resources in our California desert (one-quarter of California) guarantees that this unique and pristine area will exist for current and future Americans and other living forms. SECOND, low-impact recreational needs are addressed as burgeoning population and tourism escalates in California. All citizens will benefit through the creation of three desert national parks and 4.5 million acres of wilderness.

Our club of 1,500 members has chosen the California Desert Protection Act as our number one priority conservation issue. We have adopted five desert Wilderness Study Areas and lead seven outings since Oct. 1988. 140 people explored, studied, and enjoyed the following five WSAs: COYOTE MTNS., SAWTOOTH MTNS., CARRIZO GORGE, JACUMBA MTNS., FISH CREEK MTNS. I will describe meritorious qualities we observed on our outings in each of the five areas from first hand experience. We conclude that each area deserves wilderness designation by Congress in the acreage specified in the CDPA.

I have enclosed narratives, newspaper articles, and photos about five WSAs.

Thank you for carefully considering this important legislation that provides an incredible opportunity for all Americans.

Sincerely,
Camille Morgan
Camille Morgan
Conservation Chair of the
North County Group of the
Sierra Club

cc: Representative Packard
Senator Pete Wilson

COYOTE MTNS. WSA 373

KEY POINTS

The Coyote Mtns. WSA stands out as an OUTSTANDING WSA for many reasons. Two key reasons are 1) the excellent geological resources, and 2) the fact that the WSA would be protected since it is contiguous to Anza-Borrego State Park. Our Group urges full protection through wilderness designation according to the boundaries of the CDPA. The geological treasures of several million year old marine fossils will be extremely vulnerable unless the area receives fullest protection through wilderness designation. Current designation of ACEC by the BLM is inadequate for long-term guaranteed protection. We are extremely concerned about the area's future protection unless given wilderness designation because areas surrounding the WSA that have vehicle access have experienced serious geological degradation (theft of fossils).

SPECIAL ATTRIBUTES

The paleontological treasures are rare and of great value. We studied the fossil bearing strata which runs through the WSA which includes marine fossils, such as mollusks, clams, sand dollars, crustaceans, and others. We are delighted to know that remains of sea turtles, baleen whales, sharks, and other vertebrate fossils are an additional resource. Discovering and seeing these resources excited each visitor who visited the WSA. Most visitors had never been able to find a fossil on top of the ground or in a canyon wall before. All visitors carefully obeyed the ethic of leaving all fossils where found.

WILDERNESS QUALITIES

The environment provides such variety and protection that we felt the primeval and natural quality of wilderness as we hiked. The badlands, narrow canyons, unique sandstone caves, and mountainous areas enhanced the wilderness feeling. As we walked through one of the deep canyons solitude and quiet prevailed.

BIOLOGICAL RESOURCES

Though we did not sight the state listed endangered species, Peninsular Bighorn Sheep or the shy magic gecko reptile, we are thrilled to know this is their environment. The WSA also includes the sensitive plant, Eucnide rupestus.

VISUAL BEAUTY

We found the area to be an outstanding scenic area. Tremendous views of the badlands, canyons, colorful soils, and the fascinating wind caves provided a very diverse and high quality experience.

FISH CREEK MTNS. WSA 372

KEY POINTS

This area is one of the most remote and undisturbed WSAs in San Diego county. When we hiked the area the wilderness qualities were outstanding. Quiet and solitude prevailed within the canyons and mountainous area. The area has been affected by natural forces only. We strongly feel the full acreage recommended by the CDPA needs to be used because off-road vehicles ride on the north west side of the mining railroad. The wilderness designation should go up to the railroad on the south west side to give a buffer zone to the entire WSA and to the important lowland areas that prairie falcons use for forage.

BIOLOGICAL RESOURCES

The Fish Creek Mountains are habitat for the magic gecko, (shy lizard). Though it is seldom seen we feel it is important to protect this species. We did see several raptors. The prairie falcon is one of the important raptors often seen in this WSA.

VISUAL BEAUTY

As we hiked into an unnamed canyon from the northeast we enjoyed the varied and interesting geological beauty of the sheer walls that show major signs of faulting and cracking. A series of dry waterfalls are a spectacular area to explore, photograph, and enjoy. Views of the mountains and canyons in the interior are rugged and spectacular.

ARCHEOLOGICAL RESOURCES

The Native Americans used the Fish Creek area for village sites and burial grounds.

SAWTOOTH MTNS. WSAs 060-24 A,B,and C

KEY POINTS

This area is special for many reasons. Within its large acreage Peninsular bighorn sheep will be reintroduced, incredible plant diversity abounds throughout the wide elevation changes, and the cultural resources are rich. We strongly recommend that the full acreage of 35,400 acres be protected. This acreage includes important lowlands areas that are essential to the healthy ecosystem. The BLM proposal will weaken the long-term viability of the area.

BIOLOGICAL RESOURCES

* The WSA offers outstanding opportunity for the reintroduction of Peninsular bighorn sheep which is an endangered species. An agreement has already been signed by the BLM and the California Dept. of Fish and Game. We support this plan.

* The WSA has great diversity in plant life with 200 species of plants believed to exist. Due to drought conditions we did not observe the typical profuse showing of flowering plants as observed the spring of 1983 in which 80 species of flowering plants occurred in less than one square mile. This WSA is rich with life and variety.

*We did observe the unique transition zone of plants that beginning in the Laguna Mtns. (thick chaparral) with small bands of riparian woodlands in upper canyons, enriched desert shrub communities at mid-levels, to a rich diversity on the valley bottoms, (creosote bush, ocotillo, agave, desert willow, desert lily, and sand verbena).

CULTURAL RESOURCES

We observed Indian archaeological signs. Over one hundred archaeological sites have been recorded by archaeologists; including pottery scatters, rock art, seed grinding locations, earthen ovens and temporary camps. The richness of the plant community offered great opportunities for sustenance.

VISUAL VALUES

We find the area to have excellent scenic quality. The secluded valleys surrounded by rugged mountains, the incredible spectacular vistas, varied vegetation, steep canyons with riparian strips, and interesting rock formations add up to a remarkable area for great beauty.

CARRIZO GORGE WSA 060-025A

KEY POINTS

This WSA is rich in biological resources as well as scenic values. We strongly support its inclusion for wilderness designation at the recommended acreage of the CDPA.

BIOLOGICAL RESOURCES

This WSA is habitat for the Peninsular bighorn sheep which has been declining in population despite its listing as an endangered species by the state of California. The plant community has tremendous variety from dense semi-desert chaparral, to fan palms, to mid-level desert flora such as brittle bush. At least three sensitve plant species are found; Caulanthus simulens, Hemizonia floribunda, Astragalus douglasii.

SCENIC VALUES

Spectacular views exist from many locations as we look at Anza-Borrego State Park to the east and the view into the deep canyon of Carrizo Gorge. We enjoyed the interesting rock outcroppings throughout the WSA.

ARCHEOLOGICAL RESOURCES

Many archeological sites, grinding holes, and trails exist throughout the WSA.

JACUMBA MTNS. WSA 368

KEY POINTS

The Jacumba Mtns. WSA offers outstanding opportunity for solitude and wilderness opportunities near a large population center, offers high scenic values, and contains rich biological and archeological resources. We urge the designation of this area as wilderness in the full acreage proposed by the CDPA.

BIOLOGICAL RESOURCES

* A herd of Peninsular bighorn sheep estimated at 83 individuals ranges in the Jacumba Mtns. Also the magic gecko, golden eagle, prairie falcon, mule deer and flat-tailed horned lizard live in the Jacumba Mtns. We enjoyed exploring and looking for these animals.

*There are three novel plant communities within the WSA. We enjoyed hiking through several palm oasis areas. The Davies Valley has the agave-ocotillo community and the blackbrush enclave occurs at Mountain Springs Grade. Several rare plant species are found in the WSA.

ARCHAEOLOGICAL RESOURCES

As we hiked we discovered many Indian sites, from grinding areas to pottery scatters. Hundreds of sites have been recorded by archaeologists.

SCENIC VALUES

The area is very unique in the granitic boulder outcroppings throughout the WSA. There are great vistas of the low desert and the ancient lakeshore of Lake Cahuilla to the east.

CITIZENS FOR MOJAVE NATIONAL PARK, INC.
P.O. BOX 106 BARSTOW, CALIFORNIA 92312

ESTABLISHED 1976

The Honorable Senator Dale Bumpers
Chairman, Senate Energy Subcomittee on Public Lands, National Parks & Forests
364 Dirksen Senate Office Building
Washington, DC 20510

2 October 1989

RE: Statement of Peter Burk, President of Citizens For Mojave National Park, in support of the California Desert Protection Act, S 11.

Dear Mr. Chairman:

We strongly support the California Desert Protection Act, S 11 as introduced by Senator Alan Cranston. Please include this statement in the hearing record.

The Mojave National Park idea was born in Barstow on July 4, 1976. Local Barstow residents began working on the Mojave National Park as a Bi-Centennial project. In 1977, this group formed the "Citizens For Mojave National Park." For over 14 years these citizens and others throughout California have been working hard to save the best part of the Mojave Desert from the certain destruction that has ruined so much of the once great Mojave Desert.

A 1.5 million acre Mojave National Park will be at the confluence of three major desert systems: Sonoran, Mojave and Great Basin. These comingled ecosystems are found nowhere else in the world. The East Mojave attracts more scientists, scholars and students than any other desert region in the world.

Moreover, this is an exceptional area of cultural resources. The East Mojave has been a major crossroads of human history for over 12,000 years. It has marvelous petroglyphs, the Mojave Trail, ruins of US Army outposts, the abandoned Kelso railroad depot, the remains of the Zzyzx health resort, and the remnants of the Mojave Road traversed by Kit Carson and Jedidiah Smith.

All of this exists in an area of breathtaking beauty, with 100 mile vistas, the Cindercones National Natural Landmark, the world's largest Joshua Tree Forest, the Western Hemisphere's third highest sand dunes--the singing Kelso Dunes, and Southern California's largest limestone caverns. This area merits interpretation by the agency best qualified and most experienced--the National Park Service. The multitude of natural and cultural resources of this area merit National Park status.

A Brief History of the East Mojave

The first known inhabitants of the East Mojave lived on the west shore of Pleistocene Soda Lake perhaps some 12,000 years ago.

The Mohave and Chemehuevi Indians were the next peoples known to inhabit the East Mojave.

European influence began with Father Francisco Garces' expedition in 1776. He was guided by Mohaves across the Colorado River, over the Providence Mountains, to the Mojave River, on to Mission San Gabriel and back to Arizona.

During the Spanish and Mexican periods of California history, the Mohaves and Chemehuevis were basically independent of European influences.

In 1850 California became a state at which point administration of the public lands of the East Mojave was assumed by the Government Land Office (GLO). The GLO, predecessor of BLM, administered the East Mojave from 1850 to 1946. The GLO's main concern was land disposal. There was practically an absence of federal land management authority in the East Mojave from 1850 to 1946.

In 1859 the Mohave Nation was defeated by the U. S. Army, which then built the Mohave Road and set up a series of military posts, such as Fort Piute and Camp Rock Spring. In 1867 the Chemehuevis surrendered to the Army. Both Indian nations now have their own reservations along the Colorado River.

The railroad between Needles and Barstow was completed in 1883 by Southern Pacific. By completing this line, the company acquired large holdings of land in alternate sections along the tracks. Soon after, Santa Fe acquired control of the railroad, but not the lands. In 1905 the railroad line now owned by Union Pacific was completed between Yermo and Las Vegas. The magnificent Kelso Depot was operated by UP between 1924 until its abandonment in 1985.

The first commercial mines in the East Mojave were the silver mines of the Macedonian Mining District. Activity lasted from 1863 to 1866. The Clark Mountain Mining District was active in the 1870s. The Bonanza King Silver Mine made the town of Providence active in the 1880s. The Vanderbilt gold mining area was active in the 1890s. The only mine of national significance in the East Mojave today is the Mountain Pass mine.

Cattle grazing began in the East Mojave with the Rock Springs Land & Cattle Company about 1888. In 1894 this company incorporated. Today some 3,000 cattle (no more than a small feedlot) exist in these 1.5 million acres. This uneconomic activity is subsidized by taxpayers.

BLM was established in 1946. In 1981 BLM established the 1.5 million acre East Mojave National Scenic Area, in response to the 1.5 million acre Mojave National Park bills submitted to Congress.

The present population of the proposed Mojave National Park area is about 250. The largest settlement wholly inside the proposed park is Kelso with about 20 people. Ivanpah has one family and Cima has a population of two. Other individuals are scattered about. The ghost towns of the region include Providence, Vanderbilt, Barnwell, Hart, Lanfair, and Zzyzx Springs. Bordering towns such as Barstow, Baker, Needles, Goffs and Ludlow supply needed services.

The best economic future of the East Mojave lies in tourism. We urge Congress to designate the Mojave National Park as the best way to manage the East Mojave wonderland.

Geologic Values

A Mojave National Park will include 24 mountain ranges, two dry lakes, nine valleys, one year round flowing creek, innumerable washes, vulcanism, limestone caverns, two mesas, rhyolite plugs, a piedmont, one sand dune system, and other geologic phenomena.

The 24 mountain ranges include the Granite Mountains, South Providence Mountains, Providence Mountains, Midhills, New York Mountains, Castle Peaks, Clark Mountain, Ivanpah Mountains, Mescal Mountains, Signal Hill, Vontrigger Hills, Van Winkle Mountains, Kelso Mountains, Old Dad Mountain, Table Mountain, Striped Mountain, Marl Mountain, Soda Mountains, Cowhole Mountain, Little Cowhole Mountains, Castle Mountains, Hackberry Mountains, Woods Mountains and Piute Range.

Other fascinating geological phenomena include Piute Creek, Cima Dome, Cinder Cones National Natural Landmark, Devil's Playground, Kelso Dunes, Wildhorse Mesa., Pachalka Spring, Fenner Valley, Watson Wash, Woods Wash, Fourth of July Canyon, and Hole in the Wall.

Scientists ask many questions about the East Mojave. What caused the formation of huge Cima Dome? Were the 32 Mojave Cinder Cones formed only 500 years ago? How large was Pleistocene Soda Lake? Where does the Mojave River go? What was the nature of the tropical forests in pre-Pleistocene times? When did the giant ground sloths become extinct? These questions have yet to be fully answered. The east Mojave is certainly a scientific treasurehouse.

Botanical Values

The proposed Mojave National Park will be botanically rich with over 700 species of vascular plants. Some 25 of these are listed rare or endangered.

Within the proposed park is the only place in the world where three desert ecoystems comingle: Sonoran, Mojave, and Great Basin. In addition, there is another--a California Coastal zone.

California coastal-zone plant communities are found in the New York Mountains and the Clark Mountains. Some of these plants include oak, manzanita, ceonothus, California lilac, silk tasssel, and yerba santa. It is remarkable that these coastal species exist in the desert.

The East Mojave also has Rocky Mountain biota including the two-needle pinyon pine and the Rocky Mountain ground squirrel. Another biota is the Sierra Nevadan which includes the small white fir forests atop New York Mountain Peak and Clark Mountain.

Cima Dome Joshua Tree Forest is the world's largest Joshua Tree Forest. The pinyon pine forests of Midhills are fascinating. There are several areas of pinyon-juniper forest. There are smoke tree and willow washes.

The world's largest Mohave Yucca, at 24 feet tall, is found in the East Mojave.

There are also many species of cactus, fern, galleta grass, desert lily, and many wildflowers. In wet springtimes, you can often see miles and miles of pretty wildflowers.

BLM does almost nothing to protect botanical wonders. Overgrazing by EMNSA's 3,000 cows greatly impacts these botanical wonders. Each cow eats about 30 pounds of foliage per day. Under a Mojave National Park, there would be no cattle to destroy these fabulous plants and wildflowers.

Wildlife Values

The East Mojave is a virtual wildlife park. Because of its remoteness from urbanization, it contains the California Desert's largest herds of bighorn sheep, and probably the largest concentrations of desert tortoise.

There are over 300 species of wildlife in the East Mojave, including 47 species of mammals, and 36 species of reptiles.

A BLM analysis summarizes the wildlife values of the area: "In all of the California Desert there is no finer grouping of different wildlife habitats than in the East Mojave, both from the viewpoint of the total number of species and the total number of animals. The Kelso Dunes, Granite, Providence, and New York Mountains, and the Cima Dome are the finest examples of their particular habitat types in California, as well as being the best preserved at this time."

The East Mojave, with a herd of some 550 bighorn sheep is the largest herd of bighorn sheep in the California Desert. Only the San Gabriel Mountain herd is a larger herd in the state of California.

There are four areas of crucial desert Tortoise habitat in the East Mojave. Ivanpah Valley has the second densest tortoise populations of Gopherus aggesiz in the world. Fenner, Shadow, and Kelso valleys are also crucial desert tortoise habitat.

Other mammals found in the East Mojave include mountain lion, bobcats, porcupine, ring tail cat, coyotes, badgers, and bats.

The region's reptiles are fascinating. Gila monsters have been sited in the East Mojave as well as leopard lizards, fringe toed lizards, and the regal ring-necked snake.

The Mojave Chub, an endangered Pleistocene fish, is protected at Soda Springs.

But all this wildlife is threatened. Off road vehicle abusers, hunters, trappers, cattle grazing, mining, and urban development all threaten wildlife. A national park is the only way to preserve and protect this last vestige of Mojave Desert wildlife.

Birds

The East Mojave has some 206 species of birds. Some of these birds include golden eagles, golden crowned kinglet, elf owls, great horned owls, roadrunners, hummingbirds, red-tailed hawks, Canadian geese, and gilded northern flicker (a state endangered species). Other significant birds in the proposed park include the Prairie Falcon, Bendire's Thrasher, Crissal Thrasher, Gray Vireo, and Lucy's Warbler.

Excellent birding areas are at Kelso Depot, Zzyzx Springs and Piute Creek.

Many of these birds use the East Mojave as a flyway. There is a problem with hunters. For example, one irresponsible hunter shot and killed a pelican at Zzyzx Springs.

A Mojave National Park will protect these precious birds from hunters, target shooters, cattle grazing, mining, and ORV damage.

Cultural & Archeological Values

The Mohaves travelled through the East Mojave from perhaps the tenth century. In the seventeenth century the Chemehuevis (Southern Piutes) apparently moved into this void from Nevada. Indian trails such as the Mojave Trail can still be traced.

Cultural resources, both historic and prehistoric, are extensive in the proposed Mojave National Park. BLM estimates that the area may contain as many as 12,000 archeological sites and 1500 historic sites. The East Mojave region was used for many centuries by prehistoric peoples as a dwelling place, trading location, and source of raw materials, and many significant reminders are found today including pictographs, petroglyphs, rock shelters, milling sites, roasting pits, campsites, and prehistoric trails.

Historic resources are also extensive. Among the more notable such resources is the old Mojave Road. The remains of several Army outposts are found along the route today. The East Mojave also contains a number of mining ruins and the sites of historic ghost towns, as well as early railroad remains.

Who made the petroglyphs and pictographs in this region and what are their meanings? Perhaps we will never know unless they are protected from vandals. BLM does almost nothing to protect petroglyphs. The East Mojave has some of the finest primitive rock art in the world and vandals continue to make off with these treasures. An outstanding petroglyph or pictograph site is like a national art gallery. It merits the highest protection our country can give--National Park status.

Several Chemehuevi village sites remain, as do numerous Indian campsites. Restorations of these sites would make magnificent museums.

The Dinosaur Trackway should be protected and interpreted. These are the only known dinosaur tracks in California. They were tracks of small dinosaur birds made some 80,000,000 years ago. The San Bernardino County Museum has made plaster casts of these tracks. These fossil Mesozoic dinosaur tracks are found in sandstone deposits. The scientific value is exceptional.

Nineteenth century cultural remains include the Mojave Road, Fort Piute, Camp Rock Spring, and the ghost towns of Providence, Vanderbilt and Ivanpah the First (at Clark Mountain). Twentieth century remains include the ghost towns of Hart, Barnwell, the old Kelso Depot (abandoned in 1985) and Zzyzx Springs health resort (1944-1974).

The East Mojave is a cosmic blend of native American, Mohave, Chemehuevi, Hispanic, and American efforts, each with it own desert living experience. Nothing is sadder than for a civilization to lose touch with its past. Interpretation is the key to protecting these priceless treasures. A Mojave National Park will ensure the interpretation and protection that this wonderland merits.

Recreational Values

Recreational values in the proposed Mojave National Park are extensive. Sightseeing is a primary recreation activity, with travel through much of the area possible for passenger vehicles via good quality paved or maintained dirt roads. Much of the remainder of the area is accessible on designated unmaintained dirt roads. Numerous attractions exist for sightseers including spring wildflowers, the Kelso Dunes, volcanic phenomena at the Cinder Cones, and Mitchell Caverns. Camping occurs in the area both on a dispersed basis and at developed campgrounds. Rock climbing, bird-watching, and hiking are other popular uses of this area.

The scenery of the east Mojave is considered by many to be the finest in the California desert.

Recreation in a national park is for people of all ages now and for future generations. A Mojave National Park would offer a haven to nature lovers, sightseers, photographers, artists, hikers, campers, equestrians, bird watchers, scientists, students, history buffs, and many others. Some people like turnoffs to view the wildflowers, cacti, vistas, and to breathe the clean air. Others prefer hiking and horseback riding trails. Other visitors like ghost towns, museums, old forts, old train depots, or petyroglyphs. There is a need for interpretive trails to aid those who want to discover things for themselves. Some like solitiude; others prefer groups. Some prefer wilderness; others, automotive interpretive trails; and some like to sample bits of each.

A Mojave National Park will mesh a mosaic of the above components. A professional ranger force will protect the park from irresponsible ORVers and vandals; campgrounds will be placed away from environmentally sensitive areas. A Mojave National Park will offer a natural recreation experience. Improved dirt roads, the few existing paved roads, campgrounds with water and sanitary facilites, and the Kelso Depot as a park headquarters can provide all the "civilized" amenities needed. Visitors who require more luxurious accomodations can go to the nearby towns outside the park.

Educational Values

More scientists, scholars, and students visit the East Mojave than any other desert region in the world. Of California's ten most popular university natural study areas, five are located within the proposed park. Cima Dome, Wildhorse Mesa, Kelso Sand Dunes, Granite Mountains, and Zzyzx Springs are popular field trip areas for colleges, high schools, and other institutions.

The California Desert Studies Consortium at Zzyzx Springs , operated by the California State University system, is an educational oasis. Not only does the Consortium protect the Mojave Chub, Pleistocene Soda Lake, and the Zzyzx health resort remains, but it also is a living active laboratory for students and scholars. Tours of this remarkable facility are available to the public.

The University of California operates the Granite Mountains Research Area. There are many studies done here on the plants, wildlife, and other scientific and historical phenomena of the Mojave Desert.

A Mojave National Park is needed to protect these educational values so that there will be something left to study.

Pleistocene Values

There are many remnants from the Pleistocene Era (3,000,000 to 11,000 years ago) found in the East Mojave. There is much to learn about the Pleistocene Ice Age cultures of this desert area from the many clues in the plant, animal, and human pre-history found here.

To scientists, the East Mojave is a haven for paleontological data. Humans have been recorded as having lived at Soda Lake for at least 12,000 years. Students and scholars continue to study Pleistocene Soda Lake in order to uncover more of the story.

Pleistocene plant remnants are also preserved in the East Mojave. King Clone Creosote in Johnson Valley has been dated back some 12,000 years. This plant is considered to be the oldest living thing on earth. Cima Dome Joshua Tree Forest, the world's largest joshua tree forest is a Pleistocene remnant. The white fir forests atop New York and Clark mountain peaks are Pleistocene relict forests.

During the Pleistocene era, giant ground sloths ate joshua tree blossoms. Bones of one of these creatures have been found at the entrance to Mitchell Caverns. Other animal finds include Pleistocene rhinoceros remains in the Hackberrry Mountains and the surviving Mojave Chub, an endangered species of fish found mainly at Soda Springs.

A museum, like the George C. Page Museum at La Brea Tar Pits in Los Angeles, can be a focal point to highlight the many Pleistocene era values found in a Mojave National Park.

A park will protect and interpret the wonders of Creation for all of us to enjoy.

Wilderness Values

In 1979, the BLM inventoried the California Desert for its wilderness values. In the East Mojave, BLM found 750,000 acres to be qualified for inclusion within the National Wilderness Preservation System. However, in 1981, BLM only recommended some 230,000 of these acres to be wilderness.

All 750,000 of these East Mojave acres merit inclusion into the national wilderess preservation system.

Half of the Mojave National Park will be wilderness to ensure the protection that this fabulous region merits, and there will be adequate vehicular access to enjoy it.

Vehicular Access

A Mojave National Park will have some 1,500 miles of existing paved roads, some 1,500 miles of graded dirt roads, and a few hundred miles of existing ungraded dirt roads.

There are six major freeway entrances into the East Mojave from the two Interstate Freeways. The Las Vegas Freeway (Interstate 15) (between Barstow and Las Vegas) was completed in 1961, and the Needles Freeway (Interstate 40) (between Needles and Barstow) was completed in 1973. US Highway 95 accesses the eastern part of the proposed Park.

Some of the paved roads include Kelbaker Road, Nipton Road, Essex Road, Lanfair Road, Cima Road, Kelso-Cima Road, Morningstar Road, and Ivanpah Road.

Some of the graded dirt roads include Cedar Canyon Road, Black Canyon Road, and Zzyzx Road.

In 1859, the US Army built the first wagon road in the Mojave Desert, the Mojave Road. This road conencted San Pedro with the Colorado River and on to Prescott, Arizona. The Army had conflicts with the local Indians and several forts and post were established. From Camp Cady, the Mojave Road went east to a redoubt at Soda Springs, to Marl Spring and to Camp Rock Spring. The last California outpost was Fort Piute. This series of outposts will be protected, restored, and interpreted under a Mojave National Park.

A Mojave National Park, which lies between two freeways, may well be America's most accessible large national park.

National Landmarks

The National Park Service designated select portions of America's lands and waters to become National Landmarks. The East Mojave contains two of these: Cindercones and Mitchel Caverns.

Mitchell Caverns is under the jurisdiction of the California State Park System.

The Cinder Cones National Natural Landmark consists of 25,600 acres. Thirty-two volcanic cinder cones, intermixed with lava flows, are evidence of perhaps the most recent volcanic activity in Southern California. Yet, in spite of National Landmark status, BLM continues to allow mining of cinders in the East Mojave. Under a Mojave National Park, there would be no mining of common materials such as cinders and sand and gravel. These common minerals can be easily found elsewhere.

Five other areas in the proposed park have been studied for National Landmark status but have not yet been so designated: Cima Dome, Clark Mountain, Central Providence Mountains, Granite Mountains Piedmont and Kelso Sand Dunes.

Park Boundaries

The 1.5 million acre Mojave National Park will include all of the 1.5 million acre East Mojave National Scenic Area. The only difference will be that the Mojave National Park will be some 6,000 acres larger with the park boundary extending west of Zzyzx Road to its natural boundary at the ridgeline of the Soda Mountains.

Clark Mountain forms the head of the park proposal and the Mojave Triangle forms the rest of the park boundaries.

The boundaries of the park will be easily manageable; essentially the lands between the two Freeways and the Nevada Border.

Land Ownership

What a bargain a Mojave National Park would be! BLM already administers 86% of the 1.5 million acres. The present land ownership patterns are included in the chart below:

1. federal acreage (BLM)	1,292,000 acres	86%
2. State of California	62,000 acres	4%
a. state school lands	54,400 acres	
b. Providence Mtns SRA	5,900 acres	
c. University of California	2,280 acres	
d. Dept. of Fish & Game	140 acres	
3. Southern Pacific Railroad	87,000 acres	6%
4. other private	59,000 acres	4%
total park acreage	1,500,000 acres	100%

Unlike many new park areas, the proposed Mojave National Park will not have to deal with hundreds of small landowners. The two significant inholdings are the Southern Pacific Railroad (which wants to trade out all its lands in the East Mojave) and the State of California (which also wants to trade out most of its lands).

Ninety percent of the proposed park's acreage is already land administered by the government (86% BLM, 4% state of California). Making this a national park would merely transfer the administration within the Interior Department from BLM to the National Park Service.

Economic Benefits of a Mojave National Park

Tourism will stimulate the economy of the economically depressed East Mojave as perhaps no other project could.

In 1985 travelers spent $216.4 billion dollars in the United States. Tourism is a major industry in many areas. California is the number one tourism state in the union.

Every year more than 20 million people travel Interstates 15 and 40. These tourists zip through the Mojave Desert to spend their money elsewhere. Yet, it is common knowledge that the number one destination for tourists is national parks.

Within a year of erecting Mojave National Park signs on Interstate 15 and 40, the new park could expect one million annual visitor use-days. For example, Petrified Forest National Park has averaged over a million annual visitor-use days. Interstate 40 divides this park and is the same freeway which forms the southern boundary of the proposed Mojave National Park.

Local communities could expect a flood of increased tourism business. A Petrified Forest National Park official writes: "The local economy has, of course, benefited by the presence of the National Park. Visits average 3 to 3 1/2 hours. I would estimate that fully 30% of our visitors had not planned on visiting the park until they saw signs on the Interstate. The primary effect of this visitation is to delay a visitor so they are more likely to use available services in Holbrook and other surrounding communities."

The Canyonlands National Park (formed from BLM lands in 1964) brochure states, "Rooms and meals not available. Monticello, Moab, Green River, and Hanksville are nearby towns providing a full range of services." Mojave National Park brochures would direct tourists to local communities such as Barstow, Baker, and Needles.

National Parks give visitors a feeling of quality and psychological security. Tourists avoid BLM campgrounds such as the one at Afton Canyon because ORVers and target shooters intimidate them. National Parks provide psychological security.

With the establishment of a Mojave National Park, not one current job would be lost, yet hundreds of new service jobs would be created. A Mojave National Park would establish a vigorous tourist business and stimulate the economy of the depressed East Mojave as perhaps no other project could. The tourism business would generate revenues such as additional bed taxes and sales taxes which would greatly help stimulate the local economy.

We can have the best of both worlds: preservation of our natural and cultural resources and economic stimulus through focused tourism.

BLM Management Failures

BLM (Bureau of Land Management) has failed to protect and interpret the wonders of the East Mojave. For example, BLM is more interested in promoting the Barstow-Las Vegas motorcycle race, the world's largest motorcycle race, than in protecting natural and cultural resources in the Mojave Desert.

When BLM issued its draft East Mojave Management Framework Plan in 1977, it was obvious that the Bureau was too concerned with protecting the rights of special interests such as mining, grazing, and ORVers. These special interests don't even add up to 0.1% of the population, yet BLM favors them over the will of the vast majority of the people.

Because BLM did not consider the interests of the vast majority of people, Congressman George Brown introduced two Mojave National Park bills into Congress, one in 1978 and another in 1979.

In 1980, in BLM's California Desert Plan, BLM established the 1.5 million acre East Mojave National Scenic Area (EMNSA), our country's first National Scenic Area as a compromise to the park proposal.

In 1981 BLM issued its "Management Philosophy Statement" for EMNSA. This meaningless document advocated BLM's old line of multiple abuse. Is it any wonder that people call BLM, the "Bureau of Livestock & Mining?"

In its 1982 plan amendments to the Desert Plan, BLM began dismantling the East Mojave National Scenic Area. BLM proposed eliminating the northern 10% of EMNSA and reinstating the Barstow-Vegas motorcycle race. It was the era of James Watt and BLM undid as much of the Desert Plan as it could.

In 1983, BLM eliminated 47,500 acres of EMNSA and permitted the Barstow-Vegas race to run through two parts of EMNSA: Soda Lake and Clark Mountain. In 1983-1984 BLM did nothing to stop the Soda Lake Gold Mine tax scam.

In 1984, BLM sat idly by while MCI proposed to put up a 350' microwave tower atop Marl Mountain with a searchlight on top.

In 1985, BLM again proposed reducing EMNSA's boundaries. BLM actually tried to sell some 500 acres of the East Mojave National Scenic Area near Baker. This privatization was defeated by a concerned public.

In 1986, BLM allowed Pacific Bell to erect an intrusive microwave tower in Granite Pass and also allowed a natural gas company to erect scenically obtrusive buildings and tanks near the magnificent Kelso Dunes.

In 1988, BLM completed its East Mojave National Scenic Area Management Plan. This plan continues to allow degradation by ORVers, mining and grazing activities.

BLM "management" is synonymous with mismanagement. BLM views its role in terms of "multiple use", which translated means "multiple abuse." BLM continues to subsidize grazing, mining, and ORV events which the public neither needs nor wants.

Citizens For Mojave National Park

Since it was formed in 1977, the "Citizens" has been an effective, quickly energized desert environmental force. The group was incorporated in 1983 to further achieve its mission.

The mission of the "Citizens" is to help create a 1.5 million acre Mojave National Park. In the interim, "Citizens" has focused on keeping the East Mojave National Scenic Area (EMNSA) in its near-pristine condition.

During its twelve years of existence, the "Citizens" has engaged in many environmental battles. The Citizens has not allowed one adverse environmental proposal to go unchallenged in EMNSA since 1977. This is a 12 year record of environmental watchdogging. The creation of EMNSA is a direct result of its lobbying. Down-sizing the Barstow-Vegas motorgcycle race, increasing the number of proposed and recommended wilderness areas, preservation of the Zzyzx Springs health resort from ORV abuse, helping save and restore the abandoned Kelso Depot and stopping a 350' microwave tower and further development of transmission lines are just some of the results of "Citizens" efforts.

There have been many battles between BLM and "Citizens." Twice BLM has tried to reduce the boundaries of EMNSA (in 1982 and 1985). The "Citizens" completely defeated BLM's proposal in 1985 and in 1982 saved almost 100,000 acres of EMNSA in BLM's planned reduction. In 1985, the "Citizens" prevented BLM's scheme to sell 500 acres of EMNSA. The "Citizens" have offered many plan amendments to the Desert Plan, but all have been rejected but one. Finally, in 1985, BLM accepted a "Citizens" plan amendment to reclassify most of the Class U lands in EMNSA to Class L.

"Citizens" challenged speculative mining in EMNSA in the Soda Lake Gold mining scam of 1983-1984, and in the Castle Mountain speculation in 1987-1989. Since 1985, BLM has required a performance bond on all mining plans of operation in EMNSA.

The "Citizens" along with other organizations have been responsible for lobbying successfully in getting seven bills introduced into Congress that would establish a 1.5 million acre Mojave National Park.

The "Citizens" is governed by a Board of Directors which meets quarterly. The officers are President Peter Burk; Vice President Patrick Kelly; Secretary Laura Brady; Treasurer Stan Murphy. The other present directors are Joyce Burk, Robert Wenkam, Don Roberge, [illegible]tty Carpenter and Bob McDowell. Others who have served on the board include Barbara Diedolf, Nancy Pearlman, Scott Simons, and Bob Lundy.

The quarterly East Mojave Monitor has been the organization's newsletter since 1982. This newsletter currently has a circulation of 1,500.

National Park Service Recommendations

In 1987 the National Park Service (NPS) issued its Resource Assessment For Features Proposed in the California Desert Protection Act. In this study, the NPS recommended that the 1.5 million acre Mojave National Park be established.

This document states, "Elevations in the area range from less than 2000' in western valley areas to more than 7500' in some of the mountain areas. Geologically, the area is interesting and quite varied..."

"Because the east Mojave is at the junction of three major desert divisions--Sonoran, Mojave, and Great Basin--biological resources are extremely varied.....There are numerous species of wildlife in the area.....Cultural resources, both historic and prehistoric, are extensive in this area.....Recreational values in the east Mojave are extensive....."

The document analyzes such resources as Clark Mountain, Mescal Range, New York Mountains, Camp Rock Springs, Fort Piute, Fort Soda, Cinder Cone Natural Landmark, Mitchell Caverns and Winding Stair Cave National Natural Landmark, Cima Dome, Mid-Hills, Wild Horse Mesa, Woods and Hackberry Mountains, Ivanpah Mountains and Mescal Range, Granite Mountains, Kelso Dunes and Devil's Playground, Central Providence Mountains, Mojave Road, and Kelso Railroad Station.

The study states that the annual cost for running a Mojave National Park would "...approximate $2.5 million, with an annual personnel committment of about 75 FTE. This level of staffing would provide for resource and visitor protection and interpretation and also provide for any needed mining regulation....."

"Capital costs would be incurred for the construction of a visitor center and administrative office space, for additional visitor use facilities in areas of substantial use, and, depending on the availability of adequate housing in adjacent communities, some employee housing. The proposed legislation identifies Kelso Depot as a potential site for 'special interpretive, educational, and scientific programs within the park.' Substantial renovation and alteration of this structure would be needed to fulfill this purpose....."

It is clear that the National Park Service is willing and able to manage the Gem of the California Desert as the Mojave National Park.

Park Proponents

Senator Alan Cranston (S11) is our champion in the US Senate. Congressman Mel Levine's support has also been crucial. There are currently 90 co-sponsors of the California Desert Protection Act (HR 780) in the US House of Representatives.

At this time, there are nine counties and fourteen cities that support the Mojave National Park proposal. Support continues to grow.

Most major newspapers in California, such as the Los Angeles Times, San Francisco Chronicle, Oakland Tribune, Fresno Bee, San Diego Tribune, Los Angeles Herald-Examiner, San Bernardino Sun and many others support the legislation.

There are over 118 organizations in the California Desert Protection League which are advocates for the bill.

Polls of Americans, Californians, and desert residents have shown that upwards of 75% of people surveyed favor the establishment of the Mojave National Park and other California desert national parks.

Support for the Mojave National Park has been growing since 1976. The urgency is clear. We urge Congress to pass the California Desert Protection Act before it is too late.

Legislative History

The Mojave National Park proposal has had a long legislative history. Congressman George Brown introduced the first two 1.5 million acre Mojave National Park bills; H.R. 13282 in 1978 and H.R. 4461 in 1979. Even though there were no hearings on these bills, they were successful in persuading the Secretary of the Interior to designate the 1.5 million acre East Mojave National Scenic Area (EMNSA), our country's first National Scenic Area.

"Citizens"attempted to give BLM a chance to successfully manage EMNSA, but by 1985, BLM's management was an obvious failure.

In 1986 Senator Cranston introduced S. 2061 which included the 1.5 million acre Mojave National Park proposal. In 1987, he reintroduced an almost identical bill, S. 7, known as the "California Desert Protection Act of 1987." and Congressman Mel Levine introduced H.R. 371, the companion house bill. In July 1987 Senate hearings on S. 7 were heard.

In 1989 Senator Cranston reintroduced the California Desert Protection Act as S. 11. In the House of Representatives, Congressman Mel Levine's companion bill, H.R. 780 has 75 cosponsors.

In total there have been seven bills introduced in Congress to establish the 1.5 million acre Mojave National Park.

The "Citizens" (and many other organizations) have been working for 14 years to establish a Mojave National Park. How many more years will it take to make Mojave National Park our country's next national park?

Chronology

1976 On July 4, 1976, the Mojave National Park idea is born. Several Barstow residents advocate the park as their Bi-Centennial project.

1977 The "Citizens For Mojave National Park" is formed. The "Mojave National Park Slideshow" is shown in several California communities.

1978 Congressman George Brown introduces into Congress, HR 13282, a bill to establish a 1.5 million acre Mojave National Park.

1979 Congressman George Brown introduces into the 96th Congress, HR 4461, a bill to establish a 1.5 million acre Mojave National Park.

1980 BLM's California Desert Plan recommends establishing the 1.5 million acre East Mojave National Scenic Area (EMNSA) as a compromise to the Mojave National Park proposal.

1981 The Secretary of the Interior establishes the 1.5 million acre East Mojave National Scenic Area, our country's first National Scenic Area.

1982 In its plan amendments to the Desert Plan, BLM begins dismantling the Desert Plan. BLM recommends deleting 147,000 acres from EMNSA and reinstating the Barstow-Vegas motorcycle race. BLM reduces its wilderness recommendations by some 200,000 acres.

1983 BLM deletes 47,500 acres from EMNSA. The Citizens For Mojave National Park becomes incorporated in order to better protect EMNSA from BLM abuses.

1984 The Citizens For Mojave National Park defeats MCI's proposed [illegible]' microwave tower on Marl Mountain.

1985 The Citizens For Mojave National Park thwarts BLM's proposal to again reduce the EMNSA bounderies and to sell 500 acres of EMNSA public land.

1986 Senator Alan Cranston introduces S. 2061, the California Desert Protection Act, which includes the 1.5 million acre Mojave National Park.

1987 Senator Alan Cranston introduces S. 7, the California Desert Protection Act. Hearings on this bill are heard in July. Congressman Mel Levine introduces an identical bill, H.R. 371.

1988 The "Citizens" and three other organizations legally protest and delay Viceroy's Castle Mountain destructive gold mining scheme.

1989 Senator Alan Cranston introduces S. 11, the California Desert Protection Act. Congressman Mel Levine introduces a companion bill, H.R. 780. Hearings on HR 780 are held in July. Hearings on S11 are held in October.

When will Mojave National Park become our 51st National Park?

We also support the creation and expansion of Death Valley and Joshua Tree National Parks as outlined in S 11, and the establishment of 81 BLM wilderness areas totaling 4.5 million acres in the California Desert.

Thank you for your supoprt of this important legislation.

Sincerely,

Peter Burk

Peter Burk, President